Rockv Flats Closure Project
Baseline Cost and Basis of Estimate

Proiect
WBS Filter
Activity Filter

Baseline Devl 1AAF

Starts In FY WBS No: 1AAF01 **PuSPS Construction and Testing** Activity ID: 1AFCC80000 Description: Construction Management & Support (00) Cost Risk 2 Schedule Risk Line Item Description Units BOELabor Labor Hours Labor Cost Materials/ Sub | Contingency Total Prime Burden Cost Total Cost Hours/Unit & Escalation Type **Total Total** Cost Cost CC8.1 PuSPS Construction Proj. Mat 1.00 each EE 1.460 1.460 45.129 260.000 305.129 22.023 327.151 EE CC8.2 K-H Construction Spt Services 1.00 each 112.000 0 112.000 112.000 0 0 0 FF CC8.3 K-H Support Craft 1.00 each 1.260 1.260 22.615 0 22.615 14.134 36.749 CC8.4 Contruction Matls/Equipment 1.00 each EE 85.000 0 85.000 85.000 0 CC8.5 Construction RCTs 1.00 each EE 2.720 2.720 56.440 Λ 56.440 27.543 83.983 Λ CC8.6 Construction Escorts 1.00 each Λ 0 81.600 0 81.600 0 81.600 63.700 Total for Activity 1AFCC80000: 5.440 124.184 538.600 662.784 726.483

Line Item CC8.1 - PuSPS Construction Proj. Mgt.

BOE

WBS No:

Activity ID:

Based on estimate performed by Steve Wren (KH Construction - 10 years RFETS, 14 DOE) on March 20-31st, 2000.

Scope reflects "To-Go" quantities as of 5/22/00 based on field walkdown & verification by KH construction and PUSPS personnel.

Scope is tracked & verified on a spreadsheet maintained by Greg Williams, PuSPS scheduler.

(ext., 2145)

1AAF01

1AFCC80000

Resources

Cost Element	Skill	Department	Curve	Quantity Units					
750 STRAIGHT TIME BASE	E130 OTHER ENGINEERS	SA01S SSOC 371 Closure Project	Linear	730.00 Hours					
Factors 730 hrs/SS									
750 STRAIGHT TIME BASE	M010 FOREMEN / TEAM LEADS / GROUP	P SA01S SSOC 371 Closure Project	Linear	730.00 Hours					
Factors 730 hrs/LC									
A51 MACTEC	P160 TECHNICAL WRITERS AND EDITO	DR K777S Construction I	Linear	42,000.00 Dollars					
Factors 560 hrs/Plnr	75 dol/hr								
A52 TENERA	M040 MANAGERS (GRADE 64 - 68)	KA60S B371 PuSPS	Linear	68,000.00 Dollars					
Factors 800 hrs/C Lead	85 dol/hr								
A53 E-2	P160 TECHNICAL WRITERS AND EDITO	OR KA60S B371 PuSPS	Linear	42,000.00 Dollars					
Factors 560 hrs/Plnr	75 dol/hr								
A57 LATA	E130 OTHER ENGINEERS	KA60S B371 PuSPS	Linear	84,000.00 Dollars					
Factors 1120 hrs/KG&SM	75 dol/hr								
A5H SUBCONTRACTED SRVS	E120 SAFETY ENGINEERS	KA10S B371 ESH&Q	Linear	24.000.00 Dollars					
Factors 300 hrs/Sftv Eng	80 dol/hr								

Line Item CC8.2 - K-H Construction Spt Services

BOE

Based on estimate performed by Steve Wren (KH Construction - 10 years RFETS, 14 DOE) on March 20-31st, 2000.

Scope reflects "To-Go" quantities as of 5/22/00 based on field walkdown & verification by KH construction and PUSPS personnel.

Scope is tracked & verified on a spreadsheet maintained by Greg Williams, PuSPS scheduler.

(ext. 2145)

Resources

es	Cost Element	Skill	Department	Curve	Quantity Units
	A51 MACTEC	M040 MANAGERS (GRADE 64 - 68)	K777S Construction I	Linear	112.000.00 Dollars
	Factors 1600 hrs	70 dol/hr			

Line Item CC8.3 - K-H Support Craft

BOE

Based on estimate performed by Steve Wren (KH Construction - 10 years RFETS, 14 DOE) on March 20-31st, 2000.

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(ext. 2145)

Resources

es		Cost Element Skill				Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	C010	CARPENTERS	K777C	Construction	Linear	270.00	Hours
	Fastore	270 hrs							

WBS No: Activity ID:	1AAF01 1AFCC80000		Closure Proiect nd Basis of Estimate	Proiect WBS Filter Activity Filter	Baseline Devl 1AAF	Starts In FY *
	750 STRAIGHT TIME BASE	C040 MAINTENANCE MACHINIST (incl Exp	K777C Construction	Activity Filler	Linear	280.00 Hours
	Factors 280 hrs/Teamsters				=0.1944	200000110210
	750 STRAIGHT TIME BASE	C070 PAINTERS	K777C Construction		Linear	150.00 Hours
	Factors 150 hrs		1,			100 0011
	750 STRAIGHT TIME BASE Factors 400 hrs	L090 IGENERAL LABORER	K777C Construction		Linear	400.00lHours
	750 STRAIGHT TIME BASE	T070 MAINT, TECHS, (INSTRUMENT TEC	K777C Construction		Linear	160.00 Hours
Line Item CC	Factors 160 hrs 8.4 - Contruction Matls/Equipment					
BOE		ve Wren (KH Construction - 10 years R	FETS, 14 DOE) on March 20-33	lst, 2000.		
BOL		-				
	Scope reflects "To-Go" quantities a	as of 5/22/00 based on field walkdown	& verification by KH constr	ruction and PU	SPS personnel.	
	Scope is tracked & verified on a sp (ext. 2145)	preadsheet maintained by Greg Williams	s, PuSPS scheduler.			
Resources	Cost Element	Skill	Department		Curve	Quantity Units
710000	A5C SUPPLIES	0000 NONE	K777S Construction I		Linear	85.000.00 Dollars
	Factors 85000 Dollars					
Line Item CC8	8.5 - Construction RCTs					
BOE	Based on estimate performed by Stev	ve Wren (KH Construction - 10 years R	FETS, 14 DOE) on March 20-31	lst, 2000.		
	Scope reflects "To-Go" quantities a	as of 5/22/00 based on field walkdown	& verification by KH constr	ruction and PU	SPS personnel.	
	Scope is tracked & verified on a sp (ext. 2145)	preadsheet maintained by Greg Williams	s, PuSPS scheduler.			
Resources	Cost Element	Skill	Department		Curve	Ouantity Units
	750 STRAIGHT TIME BASE	T050 RADIATION CONTROL TECHNOLIGI	KH10H EESH&Q Steelworkers		Linear	2,720.00 Hours
	Factors 2720 hrs					
	8.6 - Construction Escorts					
BOE	Based on estimate performed by Stev	ve Wren (KH Construction - 10 years R	FETS, 14 DOE) on March 20-31	lst, 2000.		
	Scope reflects "To-Go" quantities a	as of 5/22/00 based on field walkdown	& verification by KH constr	ruction and PU	SPS personnel.	
	Scope is tracked & verified on a sp (ext. 2145)	preadsheet maintained by Greg Williams	, PuSPS scheduler.			
Resources	Cost Element	Skill	Department		Curve	Quantity Units
Resources	A56 WORLD WIDE SERVICES	0000 NONE	K777S Construction I		Linear	81.600.00 Dollars
	Factors 4 escorts	170 hrs/escort	4 months		30 dol/hr	
Activity ID:		lectrical PowerTie-Ins		Cost Risk	2 Schedule Risk	2
Line Item	Description	Quantity Units BOE Type		r Cost Materials/		al Prime Burden Cost Total Cost Cost
CCE.1	K-H Construction Craft	1.00 each EE		21.630	0 0	21.630 13.519 35.149
·		Total for Activity 1AFCCE1000:		21.630	0 0	21.630 13.519 35.149
Line Item CCI	E.1 - K-H Construction Craft					
BOE	Based on estimate performed by Stev	ve Wren (KH Construction - 10 years RI	FETS, 14 DOE) on March 20-33	lst, 2000.		
	Scope reflects "To-Go" quantities a	as of 5/22/00 based on field walkdown	& verification by KH const	ruction and PII	SPS personnel	
		preadsheet maintained by Greg Williams		raceron ana ro	bib perbonner.	
	(ext. 2145)					
Resources	Cost Element	Skill	Department	<u> </u>	Curve	Quantity Units
1100001000	750 STRAIGHT TIME BASE	C020 ELECTRICIANS	K777C Construction		Linear	1,000.00 Hours
	Factors 1000 hrs					
Activity ID:		lovebox Internals Install		Cost Risk	2 Schedule Risk	2

WBS No: 1AAF01 Activity ID: 1AFCCG6000

Rocky Flats Closure Project Baseline Cost and Basis of Estimate

Proiect WBS Filter Baseline Devl 1AAF

		-	u = u =	Activity Filter *				St				
Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
CCG.1	K-H Construction Craft	1.00	each	EE	350	350	7.511	0	0	7.511	4.694	12.205
	Tot	al for Activi	ty 1AFCCG	6000:		350	7.511	0	0	7.511	4.694	12.205

Line Item CCG.1 - K-H Construction Craft

BOE

Based on estimate performed by Steve Wren (KH Construction - 10 years RFETS, 14 DOE) on March 20-31st, 2000.

Scope reflects "To-Go" quantities as of 5/22/00 based on field walkdown & verification by KH construction and PUSPS personnel.

Scope is tracked & verified on a spreadsheet maintained by Greg Williams, PuSPS scheduler.

(ext. 2145)

Resources

Cost Element Department Units 750 STRAIGHT TIME BASE C090 STRUCTURAL AND METAL WORKE | K777C | Construction Linear 350.00 Hours

Factors 350

Activity ID: 1AFCCL2000 Description: Stab - PLCs/Control Wiring

Cost Risk 2 Schedule Risk

Line Item	Description	Quantity U	nits BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
			Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
CCL.1	K-H Construction Craft	1.00 each	EE	1.000	1.000	21.630	0	0	21.630	13.519	35.149
	Tot	al for Activity 1Af	FCCL2000:		1.000	21.630	0	0	21.630	13.519	35.149

Line Item CCL.1 - K-H Construction Craft

BOE

Based on estimate performed by Steve Wren (KH Construction - 10 years RFETS, 14 DOE) on March 20-31st, 2000.

Scope reflects "To-Go" quantities as of 5/22/00 based on field walkdown & verification by KH construction and PUSPS personnel.

Scope is tracked & verified on a spreadsheet maintained by Greg Williams, PuSPS scheduler.

(ext. 2145)

Resource

rces		Cost Element	Skill			Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	OCCO FLECTRICIANO		K777C	Construction	Linear	1,000.00	Hours

Labor

Hours/Unit

2.700

Labor Hours

Total

2.700

2.700

Labor Cost

Total

58.438

58.438

BOE

Type

Factors 1000

Line Item

Activity ID: 1AFCCM3000 Description: Stab - Mechanical Tie-Ins Description

Cost Risk 2 Schedule Risk

Materials/ Sub Cost	Contingency & Escalation	Total Prime Cost	Burden Cost	Total Cost
0	0	58.438	36.524	94.962
0	0	58,438	36 524	94 962

Line Item CCM.1 - K-H Construction Craft

K-H Construction Craft

BOE

CCM.1

Based on estimate performed by Steve Wren (KH Construction - 10 years RFETS, 14 DOE) on March 20-31st, 2000.

1.00 each

Total for Activity 1AFCCM3000:

Quantity

Scope reflects "To-Go" quantities as of 5/22/00 based on field walkdown & verification by KH construction and PUSPS personnel.

Units

Scope is tracked & verified on a spreadsheet maintained by Greg Williams, PuSPS scheduler.

(ext. 2145)

Resources

es		Cost Element		Skill		Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	C040	MAINTENANCE MACHINIST (incl Exp	K777C	Construction	Linear	150.00	Hours
Fe	ictors	150 hrs/Insul							
	750	STRAIGHT TIME BASE	C080	PLUMBERS AND PIPEFITTERS	K777C	Construction	Linear	1.750.00	Hours
Fe	ictors	1750 hrs							
	750	STRAIGHT TIME BASE	C090	STRUCTURAL AND METAL WORKE	K777C	Construction	Linear	800.00	Hours

Factors 800 hrs

Activity ID: 1AFCCP4000	Description: Stab - Punchlist Items

Cost Risk 2 Schedule Risk

Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
1.6.4.a	KH Construction	0.50	each	EE	2,580	1,290	30,182	0	0	30,182	18,864	49,045
1.6.6f	RCT Support	0.05	each	EE	990	50	1,102	0	0	1,102	538	1,640

WBS No: 1AAF01 Activity ID: 1AFCCP4000

CCT.1

K-H Construction Craft

Rocky Flats Closure Project

Proiect WBS Filter Baseline Devl

1AAF **Baseline Cost and Basis of Estimate** Activity Filter Starts In FY 31.284 31.284 19.401 50.685 Total for Activity 1AFCCP4000: 1.340 Line Item 1.6.4.a - KH Construction Scope undefined as of 5/22/00. Activities will be identified during CC/SO Testing phases of the Stabilization system scheduled for 4th qtr of FY00. BOE Resources Cost Element Units Department Curve Quantity 750 STRAIGHT TIME BASE C020 ELECTRICIANS K777C Construction 850.00 Hours Linear Factors 850 hrs 750 STRAIGHT TIME BASE C040 MAINTENANCE MACHINIST (incl Exp | K777C | Construction 1.000.00 Hours Linear 1000 hrs Factors 750 STRAIGHT TIME BASE C080 PLUMBERS AND PIPEFITTERS K777C Construction Linear 300.00 Hours Factors 300 hrs 751 OVERTIME BASE & PRE C020 ELECTRICIANS K777C Construction Linear 150.00 Hours Factors 150 hrs C040 MAINTENANCE MACHINIST (incl Exp K777C Construction 200 00 Hours 751 OVERTIME BASE & PRE Factors 200 hrs C080 PLUMBERS AND PIPEFITTERS 80.00 Hours K777C Construction 751 OVERTIME BASE & PRE Linear Factors Line Item 1.6.6f - RCT Support Based on estimate performed by Steve Wren (KH Construction - 10 years RFETS, 14 DOE) on March 20-31st, 2000. BOE Scope reflects "To-Go" quantities as of 5/22/00 based on field walkdown & verification by KH construction and PUSPS personnel. Scope is tracked & verified on a spreadsheet maintained by Greg Williams, PuSPS scheduler. (ext. 2145) Cost Element Units Resources Department Curve Quantity 750 STRAIGHT TIME BASE T050 RADIATION CONTROL TECHNOLIGI | KH10H | EESH&Q Steelworkers Linear 870.00 Hours Factors 870 hrs 751 OVERTIME BASE & PRE T050 RADIATION CONTROL TECHNOLIGI KH10H EESH&Q Steelworkers 120.00 Hours Factors 120 Activity ID: 1AFCCT5000 Description: Stab - Leak and CC Testing Cost Risk 2 Schedule Risk BOEContingency Total Prime Line Item Description Units Labor Labor Hours Labor Cost Materials/ Sub Burden Cost Total Cost **Ouantity** Hours/Unit & Escalation TypeTotal Total Cost Cost CCT.1 K-H Construction Craft 1.00 each 200 200 4.309 36.000 40.309 2.693 43.002 Total for Activity 1AFCCT5000: 200 4.309 36.000 40.309 2.693 43.002 Line Item CCT.1 - K-H Construction Craft Based on estimate performed by Steve Wren (KH Construction - 10 years RFETS, 14 DOE) on March 20-31st, 2000. BOE Scope reflects "To-Go" quantities as of 5/22/00 based on field walkdown & verification by KH construction and PUSPS personnel. Scope is tracked & verified on a spreadsheet maintained by Greg Williams, PuSPS scheduler. (ext. 2145) Resources Cost Element Curve **Ouantity** Units 750 STRAIGHT TIME BASE C020 ELECTRICIANS K777C Construction Linear 100.00 Hours 100 hrs 750 STRAIGHT TIME BASE C090 STRUCTURAL AND METAL WORKE K777C Construction Linear 100.00 Hours 100 hrs Factors A57 LATA KA10S B371 ESH&Q 17.000.00 Dollars E040 ELECTRICAL ENGINEERS Linear 200 Factors hrs 85 dol/hr M020 MANAGERS (GRADE 69 - 72) KA60S B371 PuSPS 19.000.00 Dollars A5H SUBCONTRACTED SRVS Linear dol/hr Factors 200 Activity ID: 1AFCCT5050 Description: PuSPS - Zone I Tie-Ins/Hot SO Testing Cost Risk 2 Schedule Risk ROELahor Labor Hours Labor Cost Materials/ Sub | Contingency Total Prime Rurden Cost Line Item Description **Ouantity** Units Total Cost Type Hours/Unit Total & Escalation

1.00 each

EE

200

200

4.309

43.002

2.693

40.309

WBS No: 1AAF01 Activity ID: 1AFCCT5050

Rocky Flats Closure Project

Proiect WBS Filter Baseline Devl

1AAF **Baseline Cost and Basis of Estimate** Activity Filter Starts In FY 200 4.309 36.000 40.309 2 693 43.002 Total for Activity 1AFCCT5050: Line Item CCT.1 - K-H Construction Craft Based on estimate performed by Steve Wren (KH Construction - 10 years RFETS, 14 DOE) on March 20-31st, 2000. BOE Scope reflects "To-Go" quantities as of 5/22/00 based on field walkdown & verification by KH construction and PUSPS personnel. Scope is tracked & verified on a spreadsheet maintained by Greg Williams, PuSPS scheduler. (ext. 2145) Units Resources Cost Element Denartment Curve Quantity 750 STRAIGHT TIME BASE C020 ELECTRICIANS K777C Construction 100.00 Hours Linear 100 hrs 750 STRAIGHT TIME BASE C090 STRUCTURAL AND METAL WORKE K777C Construction 100.00 Hours Linear Factors 100 hrs E040 ELECTRICAL ENGINEERS KA10S B371 ESH&Q 17.000.00 Dollars A57 LATA Linear 200 hrs dol/hr M020 MANAGERS (GRADE 69 - 72) KA60S B371 PuSPS 19.000.00 Dollars A5H SUBCONTRACTED SRVS Linear dol/hr 200 Activity ID: 1AFCCX7000 2 Schedule Risk Description: Stab - Room/Glovebox Externals Cost Risk Line Item Units BOELabor Labor Hours Labor Cost Materials/ Sub Contingency Total Prime Burden Cost Total Cost Description Type Hours/Unit Total **Total** Cost & Escalation Cost CCX.1 EE K-H Construction Craft 1.740 36.327 22.704 1.00 each 1.740 36.327 0 59.031 Total for Activity 1AFCCX7000: 1.740 36.327 36.327 22.704 59.031 Line Item CCX.1 - K-H Construction Craft Based on estimate performed by Steve Wren (KH Construction - 10 years RFETS, 14 DOE) on March 20-31st, 2000. BOE Scope reflects "To-Go" quantities as of 5/22/00 based on field walkdown & verification by KH construction and PUSPS personnel. Scope is tracked & verified on a spreadsheet maintained by Greg Williams, PuSPS scheduler. (ext. 2145) Resources Cost Element Curve Units Department C010 CARPENTERS 750 STRAIGHT TIME BASE K777C Construction Linear 80.00 Hours Factors 80 hrs 750 STRAIGHT TIME BASE C020 ELECTRICIANS K777C Construction Linear 160.00 Hours 160 hrs C070 PAINTERS K777C Construction 500.00 Hours 750 STRAIGHT TIME BASE Linear 500 hrs C090 STRUCTURAL AND METAL WORKE 1.000.00 Hours STRAIGHT TIME BASE K777C Construction Linear WBS No: 1AAF02 Pkg Mods and Punchlist Activity ID: 1AFCCC1000 Description: Pcka - Punchlist Items Cost Risk 2 Schedule Risk Materials/ Sub Total Prime Line Item Description **Ouantity** Units BOELabor Labor Hours Labor Cost Contingency Burden Cost Total Cost TypeHours/Unit Total Total Cost & Escalation Cost CCC.1 K-H Construction Craft 782 32.037 1.00 each 782 20.051 20.051 11.986 Total for Activity 1AFCCC1000: 782 20.051 20.051 11.986 32.037

Line Item CCC.1 - K-H Construction Craft

BOE

Based on estimate performed by Steve Wren (KH Construction - 10 years RFETS, 14 DOE) on March 20-31st, 2000.

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(ext. 2145)

Resources	Cost Element		Skill			Department	Curve	Quantity	Units	
			C020	ELECTRICIANS	K777C Construction		Linear	200.00	Hours	
	Factors	200	hrs							

WBS No: Activity ID:	1AAF02 1AFCCC1000						Closure P		WB		Baseline Devl 1AAF	St	arts In FY *	
	750 STRAIGHT TIME BASE	C040	MAINTE	NANCE MA	CHINIST (i	ncl Exp	K777C Con	struction	1100	100 7 2 10007	Linear		200.00 Hour	S
	Factors 200 hrs 750 STRAIGHT TIME BASE	C080	PLUMBE	RS AND P	IPEFITTER	S	K777C Con	struction			Linear		112.00 Hour	rs.
	Factors 112 hrs		1					ou douon			Elitodi			
	751 OVERTIME BASE & PRE. Factors 50 hrs	C020	ELECTR	ICIANS			K777C Con	struction			Linear		50.00 Hour	S
	Factors 50 hrs 751 OVERTIME BASE & PRE.	C040	MAINTE	NANCE MA	CHINIST (i	ncl Exp	K777C Con	struction			Linear		50.00 Hour	s
	Factors 50 hrs		1											
	751 OVERTIME BASE & PRE.	C080	PLUMBE	RS AND P	IPEFITTER	S	K777C Con	struction			Linear		50.00 Hour	S
	Factors 50 hrs 751 OVERTIME BASE & PRE.	T050	RADIATI	ON CONTI	ROL TECHN	NOLIGI	KH10H EES	H&Q Steelwor	kers		Linear		120.00 Hour	s
	Factors 120 hrs													
Activity ID:	1AFCCC2000 Description: Pckq - Ins	stall Con	amination	Mods			ı			Cost Risk	4 Schedule F	Risk 5	T	
Line Item	Description			Quantity	Units	BOE Type	Labor Hours/Unit	Labor Hours Total	Labor Cost Total	Materials/Si Cost	ub Contingency & Escalation	Total Prime Cost	Burden Cost	Total Cost
CCC.1	KH Construction			1.00	each	EE	1.080	1.080	23.000	Cost	0 0		14.375	37.376
			Tot	al for Activi	ty 1AFCCC	2000:		1.080	23.000		0 0	23.000	14.375	37.376
	C.1-KH Construction Based on estimate performed by Steve	a Wren	(KH Cons	etruation	10 10	are DE	יבייכ 14 חחו) on March	20=31e+ 2	000				
BOE														
	Scope reflects "To-Go" quantities as	s of 5/	22/00 ba	ased on i	field wal	kdown	& verificat	ion by KH o	constructio	n and PUS	PS personnel.			
	Scope is tracked & verified on a spi (ext. 2145)	readshe	et main	tained by	y Greg Wi	lliams	, PuSPS sch	eduler.						
Resources				Skill				Departi	nent		Curve	O		nits
	750 STRAIGHT TIME BASE	C020	ELECTR	ICIANS			K777C Con	struction			Linear		360.00 Hour	S
	Factors 360 hours 750 STRAIGHT TIME BASE	C040	MAINTE	NANCE MA	CHINIST (ii	ncl Exp	K777C Con	struction			Linear		360.00 Hour	S
	Factors 360 hrs							011 01011						
	750 STRAIGHT TIME BASE	C090	STRUCT	URAL AND	METAL W	ORKE	K777C Con	struction			Linear		360.00 Hour	S
Activity ID:	Factors 360 hrs 1AFCCC3000 Description: Pckg - Te	et Conto	mination N	1ods						Cost Risk	4 Schedule F	Risk 5		
		Si Conta	IIIIIIalioii N		77	BOE	TL	T -1 TT	I al con Const		1		Down Love Court	Total Cont
Line Item	Description			Quantity	Units	BOE Type	Labor Hours/Unit	Labor Hours Total	Labor Cost Total	Materials/Si Cost	ub Contingency & Escalation	Total Prime Cost	Burden Cost	Total Cost
1.10.4	Weld Validation				each	HC	1.060	1.060	25.425	30.80		0010	14.314	70.539
1 in a 14 and 4 d	0.4. Wald Validadia		Tot	al for Activi	ty 1AFCCC	3000:		1.060	25.425	30.80	00 0	56.225	14.314	70.539
BOE	D.4 - Weld Validation Historical Data Source - PIRS, Actual Item Desc - Continuation of same actual states.			rred dur	ing perio	d 1 0c	t 99 thru 2	1 May 00.						
5		1		er				-						
Resources	750 STRAIGHT TIME BASE	C020	ELECTR	Skill ICIANS			K777C Con	Departs	nent		Curve Linear	O	200.00 Hour	
	Factors 200 hours	0020	LLLO111	1017 11 40			1 11770 10011	otraotion			Linoai	"	200.00 11001	
	750 STRAIGHT TIME BASE	C040	MAINTE	NANCE MA	CHINIST (i	ncl Exp	K777C Con	struction			Linear		200.00 Hour	S
	Factors 200 hours	F0.40	EL FOTO	IOAL ENG	NEEDO		04040 000	0.074.01	D : .				400 0011	
	750 STRAIGHT TIME BASE Factors 100 hrs	E040	ELECTR	ICAL ENG	NEERS		SA015 SSC	OC 371 Closure	Project		Linear		100.00 Hour	<u>s</u>
	750 STRAIGHT TIME BASE	T050	RADIATI	ON CONTI	ROL TECHN	NOLIGI	KH10H EES	H&Q Steelwor	kers		Linear		400.00 Hour	S
	Factors 400 hours													
	751 OVERTIME BASE & PRE.	C020	ELECTR	ICIANS			K777C Con	struction			Linear		80.00 Hour	S
	Factors 80 hrs 751 OVERTIME BASE & PRE.	C040	MAINTE	NANCE MA	CHINIST (i	ncl Exp	K777C Con	struction			Linear		80.00 Hour	S
	Factors 80 hrs													

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WBS No: Activity ID:	1AAF02 1AFCCC3000					Closure P		WB		Baseline Devl 1AAF			
	A57 LATA	E040 ELECTR			oot an	KA10S B37		Acti	ivity Filter	* Linear	Si	arts In FY * 6.800.00 Dolla	uro
	Factors 80 Dollars	85	dol/hr	INEERS		KATUS DS/	IESHAQ		·	Lilleal		ט.טטט.טטווט	115
	A57 LATA	E070 MECHA		SINEERS		KA10S B37	1 ESH&Q			Linear		5.600.00 Dolla	ırs
	Factors 80 hrs A57 LATA	F070 MECHA	dollars/h NICAL ENG			KA60S B37	1 D. CDC			Linner		6.400.00 Dolla	
	A57 LATA Factors 80 Dollars	80 80	dol/hr	INEERS		NAOUS IBS/	I PUSPS			Linear		6.400.00ID0IIa	us
	A5C SUPPLIES	0000 NONE				KA60S B37	1 PuSPS			Linear		12.000.00 Dolla	ırs
Activity ID:	Factors 12000 dollars 1AFLL20000 Description: Design/In	1	Colo Me	t					G PL	0 61 11	D: 1		
		istali weld inspecti		TT14	DOE	71	T TT	I also Cont	Cost Risk	2 Schedule I		D I C	Total Com
Line Item	Description		Quantity	Units	BOE Type	Labor Hours/Unit	Labor Hours Total	Labor Cost Total	Materials/ S. Cost	ub Contingency & Escalation	Total Prime Cost	Burden Cost	Total Cost
LL.1	K-H Construction Craft			each		240	240	5.150		0 0			8.369
1 in a 11 and 1 1 a	4 K II Oznatovatian Omit	To	tal for Activi	ty 1AFLL200	000:		240	5.150		0 0	5.150	3.219	8.369
BOE	1 - K-H Construction Craft Based on estimate performed by Stev	e Wren (KH Con	struction	n - 10 yea	ars RF	ETS, 14 DOE) on March	20-31st, 2	000.				
BOL				_						IDG1			
	Scope reflects "To-Go" quantities a	S OI 5/22/00 D	ased on i	lieid walk	caown	& verilicat	TOU DY KH	constructio	n and Pus	PS personner.			
	Scope is tracked & verified on a sp (ext. 2145)	readsheet main	tained by	y Greg Wil	lliams	, PuSPS sch	meduler.						
_													
Resources	750 STRAIGHT TIME BASE	C090 STRUCT	<u>Skill</u> FLIRAL ANF) METAL W	ORKE	K777C Con	Departs	ment		<u>Curve</u> Linear	0	uantity Un 240.00 Hour	
	Factors 240 hrs	1 0000 1011100	I OTOTAL MAL	J WILL IT IL VV	OIKIKE	10770 001	Struction		L	Linear		240.00 11001	<u> </u>
Activity ID:	1AFPP40000 Description: Engr./IW	CP - Contamination	n Mods						Cost Risk	4 Schedule I	Risk 5		
Line Item	Description		Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ S	0 2	Total Prime	Burden Cost	Total Cost
3.5.1	Fume Hood Procure and Fab		1.00	each	Type EE	Hours/Unit	Total 0	Total 0	Cost 15,0	& Escalation 00 0	15.000	0	15,000
3.5.2	Other Contam. Egpmt. Procure/Fab			each	VQ	0	0		12,5				
		To	tal for Activi	ty 1AFPP40	000:		0	0	27,5				
	1 - Fume Hood Procure and Fab Based on estimate performed by Stev	o Wron (VU Con	atruation	2 - 10 7707	ora PE	יבידכ 1/ דירו	') on March	20-21gt 2	000				
BOE													
	Scope reflects "To-Go" quantities a	s of 5/22/00 b	ased on f	field wal	kdown	& verificat	ion by KH	constructio	n and PUS	SPS personnel.			
	Scope is tracked & verified on a sp (ext. 2145)	readsheet main	tained by	y Greg Wil	lliams	, PuSPS sch	eduler.						
Resources	Cost Element		Skill				Depart	ment		Curve	0	uantity Un	uits
	A5H SUBCONTRACTED SRVS	0000 NONE				KA60S B37	1 PuSPS			Linear		15.000.00 Dolla	ırs
Line Item 2.5	Factors 15000 dol												
BOE	2 - Other Contam. Eqpmt. Procure/Fab Vendor Name - On-going Competetive	Selection											
BOL	Vendor Quote - \$12,500 high bid Quote Received by - Steve Mager Date Received - 12 Jun 00 Item being quoted - Fume hood and a												
Resources	Cost Element		Skill				Depart	ment		Curve	0	uantity Un	uits
	A5H SUBCONTRACTED SRVS	0000 NONE				KA60S B37				Linear		12.500.00 Dolla	
WDC N	Factors 12500 dol	as Daniel		. (00)									
WBS No: 1A		es Development a afety Documentatio		(((()))					Cost Risk	2 Schedule I	Risk 3		
Line Item		, 200amonado	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ S	ub Contingency	Total Prime	Burden Cost	Total Cost
BB.1	Safety Documentation/Rgmts - Stab.		1 00	each	Type HC	Hours/Unit	Total 360	<i>Total</i> 11.358	Cost 149.9	90 & Escalation 0	Cost 161.348	5.543	166.891
	Calott Documentation/Training Olab.		1.00	JUGUII		300	300	11.000	173.3	001	101.040	0.040	100.031

WBS No: 1AAF03 Activity ID: 1AFBB10000

BOE

Item Desc - Continuation of same activity.

Rocky Flats Closure Project **Baseline Cost and Basis of Estimate**

Proiect WBS Filter

Baseline Devl 1AAF

Activity Filter 11.358 149.990 161.348 Total for Activity 1AFBB10000: 360 166.891 Line Item BB.1 - Safety Documentation/Rgmts - Stab. Historical Data Source - PIRS, Actuals costs incurred during period 1 Oct 99 thru 21 May 00. BOE Item Desc - Continuation of same activity. Resources Cost Element Curve **Ouantity** Units E130 OTHER ENGINEERS SA01S SSOC 371 Closure Project 750 STRAIGHT TIME BASE Linear 240.00 Hours 240 hours/Crit Indep 750 STRAIGHT TIME BASE OTHER ADMINISTRATIVE & PROFE SA01S SSOC 371 Closure Project 120.00 Hours Linear Factors 120 hours/Tech A52 TENERA M040 MANAGERS (GRADE 64 - 68) KA10S B371 ESH&Q Linear 12.480.00 Dollars 160 hrs/CSO 78 dol/hr Factors A5H SUBCONTRACTED SRVS NUCLEAR (CRITICALITY) ENGINEER KA10S B371 ESH&Q 40.000.00 Dollars Linear 400 hrs/Crit Eng dol/hr Factors A5H SUBCONTRACTED SRVS E080 NUCLEAR (CRITICALITY) ENGINEER KA10S B371 ESH&Q 69.350.00 Dollars Linear 730 hrs/Nuc Sft dol/hr A5H SUBCONTRACTED SRVS KA10S B371 ESH&Q SAFETY ENGINEERS Linear 28.160.00 Dollars hrs/FP Eng 88 Factors 320 dol/hr Activity ID: 1AFBB20000 Description: Stab - Procedure Devlpt./Prelim. Validation 2 Schedule Risk Cost Risk BOE Labor Labor Hours Labor Cost Materials/ Sub Contingency Total Prime Burden Cost Total Cost Line Item Description **Ouantity** Hours/Unit & Escalation Type Total Total Cost Cost BB.2 Ops Procedures 1.00 each 52,700 52,700 52.700 Total for Activity 1AFBB20000: 52,700 52.700 Λ 52.700 Line Item BB.2 - Ops Procedures Historical Data Source - PIRS, Actuals costs incurred during period 1 Oct 99 thru 21 May 00. BOE Item Desc - Continuation of same activity. Cost Element Skill Resources OTHER ENGINEERS A57 LATA E130 KA10S B371 ESH&Q Linear 10.200.00 Dollars Factors 120 hrs/Eng 85 dol/hr A5H SUBCONTRACTED SRVS P160 TECHNICAL WRITERS AND EDITOR | KA60S | B371 PuSPS Linear 42.500.00 Dollars 500 hrs/Proc Writer dol/hr Factors Activity ID: 1AFBB30000 Description: PMO Development Cost Risk 2 Schedule Risk BOELabor Labor Hours Labor Cost Materials/ Sub Total Prime Line Item Quantity Units Contingency Burden Cost Total Cost Description Type Hours/Unit Total Total Cost & Escalation Cost BB.3 Maintenance Activities - Pck. (00) 1.00 each 16.500 16.500 0 16.500 Total for Activity 1AFBB30000: 16.500 16.500 16.500 Line Item BB.3 - Maintenance Activities - Pck. (00) Historical Data Source - PIRS, Actuals costs incurred during period 1 Oct 99 thru 21 May 00. BOE Item Desc - Continuation of same activity. Cost Element Resources A57 LATA TECHNICAL WRITERS AND EDITOR | KA20S | B371/374 Facility Management Linear 6.600.00 Dollars 400 January 2000 Earned Value Factor Factors hrs/Planner dol/hr A5H SUBCONTRACTED SRVS MANAGERS (GRADE 69 - 72) KA60S B371 PuSPS 9.900.00 Dollars M020 Linear 600 hrs/NW 75 dol/hr 0.22 January 2000 Earned Value Factor Description: Finalize Pckg Training/Procedures/Ops Bases Activity ID: 1AFBB40000 Cost Risk 2 Schedule Risk Description BOELabor Labor Hours Labor Cost Materials/ Sub Contingency Total Prime Burden Cost Total Cost Line Item **Quantity** Units Type Hours/Unit Total Total Cost 8,700 BB4.1 Training /Quals Prep - Pkg (99) 1.00 each HC. 0 0 n 8,700 8,700 Total for Activity 1AFBB40000: 8.700 0 n 8.700 0 8.700 Line Item BB4.1 - Training /Quals Prep - Pkg (99) Historical Data Source - PIRS, Actuals costs incurred during period 1 Oct 99 thru 21 May 00.

WBS No: 1AAF03 Proiect Baseline Devl Rocky Flats Closure Project Activity ID: 1AFBB40000 WBS Filter 1AAF **Baseline Cost and Basis of Estimate** Activity Filter Starts In FY Units Resources Cost Element Skill Department Curve A5H SUBCONTRACTED SRVS P160 TECHNICAL WRITERS AND EDITOR | KA60S | B371 PuSPS Linear 8.700.00 Dollars Factors 8700 dollars Activity ID: 1AFDD10000 Description: PuSPS - Start-Up Plan of Action Cost Risk 2 Schedule Risk Line Item Description Units BOELabor Labor Hours Labor Cost Materials/ Sub | Contingency Total Prime Burden Cost Total Cost **Quantity** Type Hours/Unit **Total Total** Cost & Escalation Cost 1.11.2 Plan of Action (POA) - Stab HC 90 90 2.902 14.000 16.902 1.00 each 1.416 18.318 1.11.2a Review of Plan of Action - Stab 1.00 each HC 400 400 12.671 11.456 0 24.126 6.183 30.310 Total for Activity 1AFDD10000: 490 15.573 25.456 Λ 41.028 7.600 48.628 Line Item 1.11.2 - Plan of Action (POA) - Stab Historical Data Source - PIRS, Actuals costs incurred during period 1 Oct 99 thru 21 May 00. BOE Item Desc - Continuation of same activity. Units. Resources Cost Element Skill Department Curve 750 STRAIGHT TIME BASE E120 SAFETY ENGINEERS SA01S SSOC 371 Closure Project Linear 30.00 Hours 30 hrs 750 STRAIGHT TIME BASE E130 OTHER ENGINEERS SA01S SSOC 371 Closure Project 30.00 Hours Linear 30 hrs Factors 750 STRAIGHT TIME BASE M010 FOREMEN / TEAM LEADS / GROUP SA01S SSOC 371 Closure Project Linear 30.00 Hours Factors 30 hrs KA60S B371 PuSPS A5H SUBCONTRACTED SRVS M020 MANAGERS (GRADE 69 - 72) 14.000.00 Dollars Linear Factors 14000 dol/TT Line Item 1.11.2a - Review of Plan of Action - Stab Historical Data Source - PIRS, Actuals costs incurred during period 1 Oct 99 thru 21 May 00. BOE Item Desc - Continuation of same activity. Resources Cost Element Department Curve Quantity Units SA01S SSOC 371 Closure Project 750 STRAIGHT TIME BASE E120 SAFETY ENGINEERS Linear 60.00 Hours Factors 60 hrs E130 OTHER ENGINEERS SA01S SSOC 371 Closure Project 120.00 Hours 750 STRAIGHT TIME BASE Linear Factors 120 hrs 60,00 Hours 750 STRAIGHT TIME BASE E130 OTHER ENGINEERS SA01S SSOC 371 Closure Project Linear 60 hrs 750 STRAIGHT TIME BASE M010 FOREMEN / TEAM LEADS / GROUP SA01S SSOC 371 Closure Project 160.00 Hours Linear 160 hrs Factors A5H SUBCONTRACTED SRVS 0000 NONE KA60S B371 PuSPS 2.863.92 Dollars Linear Factors 1.02283 -- FY00 Escalation --40 hrs 70 8.591.77 Dollars A5H SUBCONTRACTED SRVS 0000 NONE KA60S B371 PuSPS Linear Factors 1.02283 -- FY00 Escalation -hr 70 dol/hr Activity ID: 1AFDD20000 Description: Consolidate Readiness Documentation 2 Schedule Risk Cost Risk 2 Line Item Description Unite BOELabor Labor Hours Labor Cost Materials/ Sub Contingency Total Prime Burden Cost Total Cost Quantity Hours/Unit Type Total Total Cost & Escalation Cost DD2.1 Consolidate Readiness Documentation 1.00 each EE 27.000 27.000 0 27.000 n n Total for Activity 1AFDD20000: Ω Λ 27.000 Λ 27 000 Ω 27.000

Line Item DD2.1 - Consolidate Readiness Documentation

BOE

Estimators Experience - James Strelow, PuSPS Project Lead, 10 years experience within DOE complex including major process start-up experience at SRS on the RTF Project and Y-12 on the Enriched Uranium Project.

Experience Item Desc - Collection, consolidatoin, organization of pertinent project documentation required to support demonstration of readiness.

Desplace of Garb Parts.

Breakdown of Cost Data:

Item - Consolidate Readiness Documentation

Units - 1

Unit Cost - \$36,500

Unit Cost Adjustment factor - N/A

Revised Unit Cost - N/A Basis for adjustment - N/A WBS No:1AAF03Rockv Flats Closure ProjectProjectBaseline DevlActivity ID:1AFDD20000WBS Filter1AAFActivity Filter*

Resources	Cost Element	Skill	Department	Curve	Quantity Units
	A5H SUBCONTRACTED SRVS	P170 OTHER ADMINISTRATIVE & PROFE	KA60S B371 PuSPS	Linear	27.000.00 Dollars
	Factors 600 hrs/MT	45 dol/hr			

Activity ID: 1AFDD30000 Description: Pre-Operational Support - Pck/Stab (00) Cost Risk 1 Schedule Risk Line Item Description BOELabor Labor Hours Labor Cost Materials/ Sub Contingency Total Prime Burden Cost Total Cost Type Hours/Unit **Total Total** Cost & Escalation Cost Pre-Ops Support - On Board DD3.1 EE 6.158 24.632 577.195 183.600 760.795 280.401 1.041.196 4.00 mo DD3.2 Pre-Ops Support - New Hire 2.00 each EE 906 1.812 43.416 0 43.416 21.063 64.478 SYS Contingency And Escalation 1.00 ea FF Λ 11.283 11.283 11.283 Λ Λ Λ n Total for Activity 1AFDD30000: 26.444 620.610 183.600 11.283 815.493 301.464 1.116.957

Line Item DD3.1 - Pre-Ops Support - On Board

BOE

Estimators Experience - James Strelow, PuSPS Project Lead, 10 years experience within DOE complex including major process start-up experience at SRS on the RTF Project and Y-12 on the Enriched Uranium Project.

Experience Item Desc - LOE for direct and indirect operating staff during testing and readiness preparation and demonstration period.

Resources

es	Cost Element		Skill		Department	Curve	Ouantity Units
750	STRAIGHT TIME BASE	E130	OTHER ENGINEERS	SA01S	SSOC 371 Closure Proiect	Linear	180.00 Hours
Facto	rs 1 SOE - Tech		180 hrs/SOE				
750	STRAIGHT TIME BASE	M010	FOREMEN / TEAM LEADS / GROUP	SA01S	SSOC 371 Closure Proiect	Linear	906.00 Hours
Facto	rs 6 Suprv		151 hrs/Suprv	,		т.	
750	STRAIGHT TIME BASE	M020	MANAGERS (GRADE 69 - 72)	SA01S	SSOC 371 Closure Proiect	Linear	302.00 Hours
Facto	rs 2 Ops/Dep Ops Mar		151 hrs	,		т.	
750	STRAIGHT TIME BASE	R010	CHEMICAL SYSTEMS OPERATOR (KA60H	371 PuSPS Steelworkers	Linear	4.530.00 Hours
Facto	rs 30 RRTs		151 hrs/P.S/mo.	,		т.	
750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KA10H	371 Complex Steelworkers	Linear	240.00 Hours
Facto	rs 2 RCTs		120 hrs/RCT/mo	,		т.	
A52	TENERA	E040	ELECTRICAL ENGINEERS	KA60S	B371 PuSPS	Linear	45.900.00 Dollars
Facto	rs 3 SOEs - Electr		180 hrs/SOE		85 dol/hr		

Line Item DD3.2 - Pre-Ops Support - New Hire

BOE

Estimators Experience - James Strelow, PuSPS Project Lead, 10 years experience within DOE complex including major process start-up experience at SRS on the RTF Project and Y-12 on the Enriched Uranium Project.

Experience Item Desc - LOE for direct and indirect operating staff during testing and readiness preparation and demonstration period.

Resources

s	Cost Element	Skill	Department	Curve	Ouantity Units
	750 STRAIGHT TIME BASE	M010 FOREMEN / TEAM LEADS / GROUP	SA01S SSOC 371 Closure Project	Back Loaded	453.00 Hours
	Factors 3 Suprv	151 hrs/Supry			
	750 STRAIGHT TIME BASE	R010 CHEMICAL SYSTEMS OPERATOR (KA60H 371 PuSPS Steelworkers	Back Loaded	453.00 Hours
	Factors 3 PPTs	151 hrs/P S/mo			

Line Item SYS - Contingency And Escalation

BOE

Resources

s		Cost Element		Skill		Department	Curve	Quantity	Units
	CON	CONTINGENCY	0000	NONE	ZDEPT	No Department	Linear	6.575.18	Dollars
F	actors	6575.18 Dollars							
	ESC I	ESCALATION	0000	NONE	ZDEPT	No Department	Linear	4.708.03	Dollars

Factors 4708.03 Dollars

Activity ID: 1AFTT20000 Description: Stab - Develop Training

Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
1.9.2	Training /Quals Prep - Pkg (99)	0.50	each	EE	0	0	0	27.500	0	27.500	0	27.500
Total for Activity 1AFTT20						0	0	27.500	0	27.500	0	27.500

Line Item 1.9.2 - Training /Quals Prep - Pkg (99)

BOE

Estimators Experience - James Strelow, PuSPS Project Lead, 10 years experience within DOE complex including major process start-up experience at SRS on the RTF Project and Y-12 on Enriched Uranium Restart Project.

Experience Item Desc - Training, Qualifications, Drills - Pkg.

2 Schedule Risk

Cost Risk

Starts In FY

WBS No: 1AAF03 Proiect Baseline Devl **Rocky Flats Closure Project** Activity ID: 1AFTT20000 WBS Filter 1AAF **Baseline Cost and Basis of Estimate** Activity Filter Starts In FY * Breakdown of Cost Data: Item - Job Task Analysis Units - 1 document Unit Cost - \$12,600 Item - Training Packages Units - 2 training packages Unit Cost - \$8,400 Item - Training, Ouals, and Drills Units - 4 Unit Cost - \$8,400 Item - Start-Up Lead Units - 1 person Unit Cost - \$4,900 Cost Element **Ouantity** Units Resources Department Curve A5H SUBCONTRACTED SRVS 0000 NONE KA60S B371 PuSPS Linear 55.000.00 Dollars Factors 55000 dol Activity ID: 1AFTT30000 Description: Stab - Classroom Trng, and Prelim TKV/OJT Cost Risk 2 Schedule Risk BOELabor Cost Materials/ Sub Total Prime Line Item Description Units Labor Labor Hours Contingency Burden Cost Total Cost Type Hours/Unit Total **Total** Cost & Escalation Cost 1.9.2 Classroom Trng and Quals 0.50 each FF 180 90 4.811 14.350 19.161 2.348 21.508 14.350 Total for Activity 1AFTT30000: 90 4.811 0 19.161 2.348 21.508 Line Item 1.9.2 - Classroom Trng and Quals Estimators Experience - James Strelow, PuSPS Project Lead, 10 years experience within DOE complex including major process start-up experience at SRS on the BOE RTF Project and Y-12 on Enriched Uranium Restart Project. Experience Item Desc - Dry Runs & Drills - Pkg. Breakdown of Cost Data: Item - Plan, Conduct, and Evaluate 6 drill scenarios prior to start-up demonstrations Units - 6 drill scenarios Unit Cost - \$6300/scenario (3 days per secenario) Skill Resources Cost Element Department Curve Quantity Units 750 STRAIGHT TIME BASE M020 MANAGERS (GRADE 69 - 72) SA01S SSOC 371 Closure Project Linear 180.00 Hours 180 Factors hrs 12 600 00 Dollars A57 LATA P150 TRAINERS KA60S B371 PuSPS Linear 70 dol/hr 180 hrs 16.100.00 Dollars A5H SUBCONTRACTED SRVS M020 MANAGERS (GRADE 69 - 72) KA60S B371 PuSPS Linear Factors 70 dol/hr 230 hrs Activity ID: 1AFTT35000 Description: Final Procedure Valid/Revise JTA & Cert Pkg 2 Schedule Risk Cost Risk Line Item Description **Ouantity** Units BOELabor Labor Hours Labor Cost Materials/ Sub Contingency Total Prime Burden Cost Total Cost Type Hours/Unit Total Total Cost & Escalation Cost 1.TT.1 2.367 Final Proced. & Training Certs. 0.25 each 267 2.100 130 2.498 267 2.100 2.367 130 Total for Activity 1AFTT35000: 2.498 Line Item 1.TT.1 - Final Proced. & Training Certs. Historical Data Source - PIRS, Actuals costs incurred during period 1 Oct 99 thru 21 May 00. BOE Item Desc - Continuation of same activity. Cost Element Skill Units Resources 750 STRAIGHT TIME BASE SA01S SSOC 371 Closure Project M020 MANAGERS (GRADE 69 - 72) 20.00 Hours Linear Factors 20 A57 LATA P150 TRAINERS KA60S B371 PuSPS Linear 2.800.00 Dollars

	Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
					Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
-									•	•			

KA60S B371 PuSPS

hrs

hrs

M020 MANAGERS (GRADE 69 - 72)

80

Description: PuSPS - OJT/Dry Runs and Drills

Factors 70 dol/hr

Factors 70

Activity ID: 1AFTT40000

A5H SUBCONTRACTED SRVS

Cost Risk

Linear

1 Schedule Risk

5.600.00 Dollars

WBS No: Activity ID:	1AAF03 1AFTT40000				ockv Flats seline Cost a			WB		aseline Devl AAF	Ç.	arts In FY	*	
1.TT4.1	OJT/Drv Runs			0.50 ea	nch EE	0	0) 0			0	12.600
SYS	Contingency And Escalat	tion		1.00 ea		0							0	487
			Total		1AFTT40000:		0						0	13.087
Line Item 1.T	T4.1 - OJT/Dry Runs													
BOE	Historical Data Source Item Desc - Continuati			ed during	g period 1 C	ct 99 thru	21 May 00.							
Resources	Cost Elemen	ıt		Skill			Depart	tment		Curve	0	uantity	Units	
	A57 LATA		TRAINERS			KA60S B37				Linear		12.600.00 Do		1
	Factors 70 dol/hr		180	hrs										_
	A5H SUBCONTRACTED	SRVS M020	MANAGER	S (GRADE	69 - 72)	KA60S B3	1 PuSPS			Linear		12.600.00 Do	llars]
	Factors 70 dol/hr		180	hrs										
Line Item SYS BOE	S - Contingency And Escalation	on												
Resources	Cost Elemen	t		Skill			Depart	tment		Curve	0	uantity	Units]
	CON CONTINGENCY	0000	NONE			ZDEPT No	Department			Linear		283.69 Do	llars]
	Factors 283.687 Dollars													,
	ESC ESCALATION	0000	NONE			ZDEPT No	Department			Linear		203.13 Do	llars]
Activity ID:	Factors 203.128 Dollars 1AFTT50000 Des	scription: Radiography Che	ckout/Proced	ures/Trng					Cost Risk	2 Schedule	Risk 2			
Line Item	1	Description	(Quantity	Units BOE Type	Labor Hours/Unit	Labor Hours Total	Labor Cost Total	Materials/ Sub Cost	Contingency & Escalation	Total Prime Cost	Burden Cos	t To	otal Cost
1.8.5	Rad Equipment Training			1.00 ea	ch HC	320	320	7.107	5.600	0	12.707	3.46	8	16.176
			Total	for Activity	1AFTT50000:		320	7.107	5.600	0	12.707	3.46	8	16.176
	Breakdown of Historica Item - Training on Ra Units - 1 month Unit Cost - 376 hrs & Unit Cost Adjustment Revised Unit Cost - N Basis for adjustment	ad Equipment 2 \$5,600 factor - N/A N/A												
Resources	Cost Elemen	ıt		Skill			Depart	tmant		Curve	0	uantity	Units	Ī
Nesources	750 STRAIGHT TIME BA		MAINT TE		TRUMENT TEC	KA10H 371	Complex Stee			Linear		320.00 Hc		1
	Factors 320 hours	1010		OI IO. VII IO	TOWERT TEO	100000	OCITIDION OLOC	2111011010		LINOUI	'	OZO.OON R	uio	•
	A5H SUBCONTRACTED	SRVS S090	OTHER SC	CIENTISTS		KA60S B37	1 PuSPS			Linear		5.600.00 Do	llars	
	Factors 5600 dollars													
WBS No: 1	AAF04 Titl	e: PuSPS Engineer	ing Services											
Activity ID:	1AFEE10000 Des	scription: DMS Developmen	nt and Testino	1					Cost Risk	2 Schedule	Risk 2			
Line Item	ı	Description	Q	Quantity	Units BOE Type	Labor Hours/Unit	Labor Hours Total	Labor Cost Total	Materials/ Sub Cost	Contingency & Escalation	Total Prime Cost	Burden Cos	t To	otal Cost
EE1.1	DMS Dvlpmt, / Testing			1.00 ea		1.008	1.008		C			15.78	0	48.117
			Total	for Activity	1AFEE10000:		1.008	32.337		0	32.337	15.78	0	48.117
Line Item EE1	1.1 - DMS Dvlpmt. / Testing													
BOE	Historical Data Source Item Desc - Continuati	e - PIRS, Actuals cos ion of same activity	sts incurr	ed during	g period 1 C	ct 99 thru	21 May 00.							
Resources	Cost Elemen	t		Skill			Depart	tment		Curve	0	uantity	Units]
	750 STRAIGHT TIME BA		ELECTRIC		ERS	KA10S B3				Linear		1.008.00 Ho]
	Factors 240 hrs										eks to coordina	te operationa		
	0.7 January	2000 Earned Value Factor												
Activity ID:	1AFEE30000 Des	scription: CC/SO - EOs/Pro	cedures/Plan	S					Cost Risk	2 Schedule I	Risk 2			

WBS No: 1AAF04 Activity ID: 1AFEE30000

Rockv Flats Closure Project Baseline Cost and Basis of Estimate

Proiect WBS Filter Baseline Devl 1AAF

				Baseline C	ost an	id Basis of E	stimate	Act	ivity Filter *		St	arts In FY *	
Line Item	Description		Quantity	Units	BOE Type	Labor Hours/Unit	Labor Hours Total	Labor Cost Total	Materials/ Sub Cost	Contingency & Escalation	Total Prime Cost	Burden Cost	Total Cost
3.1	CC/SO Testing Procedures / Plans			each	HC	360	360	11.797	30.050		111011		47.60
		Tot	al for Activ	ity 1AFEE30	000:		360	11.797	30.050	0	41.847	5.757	47.60
ſ	.1 - CC/SO Testing Procedures / Plans												
	Historical Data Source - PIRS, Actu Item Desc - Continuation of same ac		rred dur	ing period	d 1 Oc	t 99 thru 2	21 May 00.						
Resources	Cost Element		Skill				Depart	ment		Curve	0	uantity Un	its
	750 STRAIGHT TIME BASE	E070 MECHAI	NICAL ENG	GINEERS		KA10S B37	1 ESH&Q			Linear		240.00 Hour	s
ſ	Factors 240 hours												
Į	750 STRAIGHT TIME BASE	E070 MECHAI	VICAL ENG	GINEERS		R100S RMI	RS Salaried			Linear		120.00 Hour	3
[Factors 120 hours	FO40 FLEOTO	IOAL ENO	INFERO		144400 BOT	4 501100					40,000,000	_
ļ	A57 LATA	E040 ELECTR		INEERS		KA10S B37	1 ESH&Q			Linear		10.200.00 Dolla	rs
[Factors 120 hours A5C SUPPLIES	85 0000 NONE	dol/hr			KA60S B37	1 Duede			Linear		7.500.00 Dolla	re
ı	Factors 7500 dollars	I 0000 INCINE				NA003 D37	TFUSFS		ļ.	Lilleai		7.500.00 D0 la	13
	A5H SUBCONTRACTED SRVS	M020 MANAG	FRS (GRA	DE 69 - 72)		KA60S B37	1 PuSPS			Linear		12.350.00 Dolla	rs
•	Factors 130 hours	95	dol/hr			10000 ,201	11 40. 0		*				
•	1AFEE40000 Description: Title III I		1	1	1	Γ		T	Cost Risk	1 Schedule F			
Line Item	Description		Quantity	Units	BOE Type	Labor Hours/Unit	Labor Hours Total	Labor Cost Total	Materials/ Sub Cost	Contingency & Escalation	Total Prime Cost	Burden Cost	Total Cos
E4.1	TIII			each each	HC	1.920	1.920	61.925	298.900		360.825		391.0
E4.3	As-Builts (00)			each each	HC	0	0	0	89.250		89.250		89.2
		Tot	al for Activ	ity 1AFEE40	000:		1.920	61.925	388.150	0	450.075	30.219	480.2
	Historical Data Source - PIRS, Acti Item Desc - Continuation of same ac		rred dur	ing period	d 1 Oc	t 99 thru 2	21 May 00.						
Į	Item Desc - Continuation of same ac	CLIVILY.				I							
Resources	Cost Element		Skill				Depart			Curve	0	uantity Un	
l	750 STRAIGHT TIME BASE	E040 ELECTR	ICAL ENG	INEERS		SA01S SSC	OC 371 Closure	e Proiect		Linear		1.440.00 Hour	3
[Factors 1440 hrs					D	200111					100 0011	
Į	750 STRAIGHT TIME BASE	E070 MECHAI	NICAL ENG	GINEERS		R100S RMI	RS Salaried			Linear		480.00 Hour	š
]	Factors 480 hrs A57 LATA	E040 ELECTR	ICAL ENG	INITEDO		KA10S B37	4 501180			Linear		40.800.00 Dolla	
l	Factors 480 hrs	1 E040 IELECTR 85	dol/hr	IINEERS		NATUS IBS/	IESHAQ			Linear		40.800.00ID0IIa	IS
[A57 LATA	E130 OTHER		RS		KA60S B37	1 PuSPS			Linear		90.000.00 Dolla	re
ı	Factors 1200 hrs/Various Eng	75	dol/hr	NO.		10,000 1001	11 401 0			Lincal	,	50.000.00ID0IIA	
	A5H SUBCONTRACTED SRVS		ENGINEER	RS		KA60S B37	1 PuSPS			Linear	9	96.000.00 Dolla	ırs
	Factors 1200 HRS	. 80	dol/hr										
	A5H SUBCONTRACTED SRVS	M020 MANAG	ERS (GRA	DE 69 - 72)		KA60S B37	1 PuSPS			Linear	-	72.100.00 Dolla	rs
	Factors 700 hrs	103	dol/hr										
	.3 - As-Builts (00)												
	Historical Data Source - PIRS, Acti Item Desc - Continuation of same ac		rred dur	ing period	d 1 Oc	t 99 thru 2	21 May 00.						
Resources	Cost Element		Skill				Depart	ment		Curve	0	uantity Un	its
	A57 LATA	E040 ELECTR	ICAL ENG	INEERS		KA60S B37	1 PuSPS			Linear		21.000.00 Dolla	rs
,	Factors 280 hrs	75	dol/hr										
	A58 ASI	E130 OTHER	ENGINEER	RS		KA60S B37	1 PuSPS			Linear	(68.250.00 Dolla	rs
	Factors 1050 hrs/ASI	65	dol/hr										
BS No: 1A		Project Manageme											
tivity ID: 1	1AFGG10000 Description: Project	Oversight/Risk Mana	gement (0	0)					Cost Risk	1 Schedule F	Risk 1		
Line Item	Description		Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cos

Hours/Unit

& Escalation

WBS No: 1AAF05 Baseline Devl Proiect Rocky Flats Closure Project 1AFGG10000 1AAF Activity ID: WBS Filter **Baseline Cost and Basis of Estimate** Activity Filter Starts In FY HC 36.517 GG1.1 Proj. Oversight and Plng. (00) 1.00 each 1.400 1.400 74.830 25.500 n 100.330 136.847 GG2 2 Planning and Integration (00) 1.00 each 147.000 Λ 147.000 Λ 147.000 Λ Λ Total for Activity 1AFGG10000: 1.400 74.830 172.500 0 247.330 36.517 283.847 Line Item GG1.1 - Proj. Oversight and Plng. (00) Historical Data Source - P&I Reporting Sytem, WAD 13, Charge Number N3HC00, 002 Report, period Oct99 - May00 BOE Item Desc - PuSPS Project Management and Controls (LOE) Breakdown of Historical Data: Item - KH project management, administrative, and SSOC management. Units - 3 FTEs, \$170K Resources Cost Element Skill Department Curve **Ouantity** Units M020 MANAGERS (GRADE 69 - 72) KA60S B371 PuSPS 750 STRAIGHT TIME BASE Linear 700.00 Hours 700 hrs/KK M020 MANAGERS (GRADE 69 - 72) 750 STRAIGHT TIME BASE SA01S SSOC 371 Closure Project Linear 700.00 Hours 700 HRS/tm Factors 1.000.00 Dollars A5C SUPPLIES 0000 NONE KA60S B371 PuSPS Linear Factors 1000 Dollars A5H SUBCONTRACTED SRVS G010 ADMINISTRATIVE ASSISTANTS KA60S B371 PuSPS 24.500.00 Dollars Linear Factors 700 35 dol/hr Line Item GG2.2 - Planning and Integration (00) Historical Data Source - P&I Reporting Sytem, WAD 13, Charge Number N3HC00, 002 Report, period Oct99 - May00 BOE Item Desc - Cost and schedule planning and integration. Breakdown of Historical Data: Item - KH project management, project controls, administrative, and KH Oversight Units - 2 FTEs, \$156K Resources Cost Element Skill Units Department Curve Quantity A5H SUBCONTRACTED SRVS KA60S B371 PuSPS 69.750.00 Dollars M020 MANAGERS (GRADE 69 - 72) Linear 750 hrs/RR 93 dol/hr Factors COST ESTIMATORS PLANNERS AN KA60S B371 PuSPS A5H SUBCONTRACTED SRVS P070 Linear 77.250.00 Dollars 750 hrs/GW 103 dol/hr Factors Activity ID: 1AFGG20000 1 Schedule Risk Description: Project Oversight/Risk Management (01) Cost Risk Materials/ Sub Total Prime Description Units BOELabor Labor Hours Labor Cost Contingency Burden Cost Total Cost Line Item **Ouantity** Type Hours/Unit Total Total Cost & Escalation Cost GG2.1 EE 55 326 Proj. Oversight and Plng. (01) 1.00 each 2.170 2.170 115.987 97.000 212.987 268.312 GG2.2 Project Controls (01) 1.00 each EE 0 0 186.000 0 186.000 0 186.000 FF SYS Contingency And Escalation 1.00 ea 0 0 0 0 24.086 24.086 0 24.086 Total for Activity 1AFGG20000: 2 170 283 000 55 326 115 987 24 086 423 072 478 398 Line Item GG2.1 - Proj. Oversight and Plng. (01) Historical Data Source - P&I Reporting Sytem, WAD 13, Charge Number N3HC00, 002 Report, period Oct99 - May00 BOE Item Desc - PuSPS Project Management and Controls (LOE) Breakdown of Historical Data: Item - KH project management, administrative, and SSOC management. Units - 3 FTEs, \$170K Basis for adjustment - N/A Resources Cost Element Skill Department Curve Quantity Units 750 STRAIGHT TIME BASE M020 MANAGERS (GRADE 69 - 72) KA10S B371 FSH&Q Linear 360.00 Hours Factors 360 hours M020 MANAGERS (GRADE 69 - 72) SA01S SSOC 371 Closure Project 1.810.00 Hours 750 STRAIGHT TIME BASE Linear Factors 1810 hours A5C SUPPLIES 0000 NONE KA60S B371 PuSPS Linear 27.000.00 Dollars

KA60S B371 PuSPS

G010 ADMINISTRATIVE ASSISTANTS

dol/hr

35

27000 dol

2000

A5H SUBCONTRACTED SRVS

hrs/Admin

Factors

Factors

Linear

70,000.00 Dollars

WBS No: 1AAF05 1AFGG20000 Activity ID:

Proiect **Rocky Flats Closure Project** WBS Filter **Baseline Cost and Basis of Estimate** Activity Filter

Line Item GG2.2 - Project Controls (01)

BOE

Historical Data Source - P&I Reporting Sytem, WAD 13, Charge Number N3HC00, 002 Report, period Oct99 - May00

Item Desc - Cost and schedule planning and integration.

Breakdown of Historical Data:

Item - KH project management, project controls, administrative, and KH Oversight

Units - 2 FTEs, \$156K

Cost Element Skill Quantity Units Resources Department Curve A5H SUBCONTRACTED SRVS M020 MANAGERS (GRADE 69 - 72) KA60S B371 PuSPS Linear 186.000.00 Dollars

Factors 93 dollars/hr 2000 hours

Line Item SYS - Contingency And Escalation

BOE

Resources

es		Cost Element		Skill		Department	Curve	Quantity	Units
	CON	CONTINGENCY	0000	NONE	ZDEPT	No Department	Linear	14.532.50	Dollars
	Factors	14532.5 Dollars							
	FSC	ESCALATION	0000	NONE	7DEPT	No Department	Linear	0 553 17	Dollare

9553.17 Dollars Factors 1 A EGG 30000 Description: Project Oversight/Closeout (02)

Activity ID: 1AF	GG30000 Description: Project Oversight/Closeout (02)						Cost Risk	1 Schedule R	?isk 1		
Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
GG3.1	Proj. Oversight and Plng. (02)	1.00	each	EE	680	680	36.346	33.800	0	70.146	12.830	82.976
GG3.2	Proiect Controls (02)	1.00	each	EE	0	0	0	66.500	0	66.500	0	66.500

FF 22,341 1.00 ea 22.341 0 22.341 Total for Activity 1AFGG30000: 680 36.346 100.300 22.341 158,987 12.830 171,817

Baseline Devl

Starts In FY

1AAF

Line Item GG3.1 - Proj. Oversight and Plng. (02)

BOE

SYS

Historical Data Source - P&I Reporting Sytem, WAD 13, Charge Number N3HC00, 002 Report, period Oct99 - May00

Item Desc - PuSPS Project Management and Controls (LOE)

Breakdown of Historical Data:

Contingency And Escalation

Item - KH project management, administrative, and SSOC management.

Units - 3 FTEs, \$170K

Basis for adjustment - N/A

Resources

S Cost Element	Skill	Department	Curve	Ouantity Units
750 STRAIGHT TIME BASE	M020 MANAGERS (GRADE 69 - 72)	SA01S SSOC 371 Closure Project	Linear	680.00 Hours
Factors 680 hours				
A5C SUPPLIES	0000 NONE	KA60S B371 PuSPS	Linear	10.000.00 Dollars
Factors 10000 dol				
A5H SUBCONTRACTED SRVS	G010 ADMINISTRATIVE ASSISTANTS	KA60S B371 PuSPS	Linear	23.800.00 Dollars
Factors 680 hrs	35 dol/hr			

Line Item GG3.2 - Project Controls (02)

BOE

Historical Data Source - P&I Reporting Sytem, WAD 13, Charge Number N3HC00, 002 Report, period Oct99 - May00

Item Desc - Cost and schedule planning and integration.

Breakdown of Historical Data:

Item - KH project management, project controls, administrative, and KH Oversight

Units - 2 FTEs, \$161K

Resources	Cost Element	Skill	Department	Curve	Ouantity	Units
	A5H SUBCONTRACTED SRVS	M020 MANAGERS (GRADE 69 - 72)	KA60S B371 PuSPS	Linear	66.500.00	Dollars

hrs/CA Factors 700 dol/hr

Line Item SYS - Contingency And Escalation

BOE

Resources	Cost Element		Skill	Department	Curve	Quantity	Units
	CON CONTINGENCY	0000	NONE	ZDEPT No Department	Linear	15.355.96	Dollars
	Factors 15356 Dollars						
	ESC ESCALATION	0000	NONE	ZDEPT No Department	Linear	6 985 24	Dollars

Factors 6985.24 Dollars Page 15 of 33 6/22/00 8:47:18 PM OFFICIAL USE ONLY WBS No: 1AAF06 Activity ID: 1AFFF10000

Rocky Flats Closure Project Baseline Cost and Basis of Estimate

Proiect WBS Filter Baseline Devl

1AAF Activity Filter

Baseline Cost and Basis of Estimat							Activity Filter *			Ste	Starts In FY *	
WBS No: 1AAF0 Activity ID: 1AF	76 Title: Material Campaign Manage PF10000 Description: Impl Supercritical Fluid Extra							Cost Risk	4 Schedule R	Risk 4		
Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
FF.1	Design & Development	1.00	each	EE	120	120	3.757	11.900	0	15.657	1.828	17.485
FF.2	SFE Procurement	1.00	each	VQ	0	0	0	26.609	0	26.609	0	26.609
FF.3	SFE Installation and Test	1.00	each	EE	296	296	6.839	4.200	0	11.039	3.310	14.348
SYS	Contingency And Escalation	1.00	ea	EE	0	0	0	0	398	398	0	398
	Total for Activity 1AFFF10					416	10.596	42.709	398	53.703	5.137	58.840
Line Item FF.1 - Do	esian & Development											

BOE

Estimators Experience - Technical and cost bases extracted from "Comparitive Study of Moisture Determination Methods", published in April 99, by Los Alamos National Laboratory. Report compiled by the Physical Organic Chemistry, Analytical Chemistry, Nuclear Materials Management and Control, Material Characterization, and Actinide Chemistry Groups.

Experience Item Desc - Super Critical Fluid Extraction process implementation for the PuSPS.

Breakdown of Cost Data:

Item - Design and Development of SFE

Units - 680 electrical/mechanical engineering and chemist hours

Unit Cost - \$52,312

Resources

es		Cost	Element		Skill		Department	Curve	Quantity	Units
	750	STRAIGHT T	IME BASE	S010	CHEMISTS	SA01S	SSOC 371 Closure Project	Linear	120.00	Hours
_	Factors	120 h	nrs							
	A57	LATA		E040	ELECTRICAL ENGINEERS	KA60S	B371 PuSPS	Linear	11.900.00	Dollars
	Factors	140 h	nrs		85 dol/hr					

Line Item FF.2 - SFE Procurement

BOE

Vendor Name - Procurement cost extracted from "Comparitive Study of Moisture Determination Methods", published in April 99, by Los Alamos National Laboratory. Report compiled by the Physical Organic Chemistry, Analytical Chemistry, Nuclear Materials Management and Control, Material Characterization, and Actinide Chemistry Groups.

Vendor Quote - \$58K

Quote Received by - Paul Oppedal, PuSPS Material Campaign Planning Lead, T371C, x5462

Item being quoted - SFE System

Resource

rces		Cost Element		Skill		Department	Curve	Quantity	Units
	A5H	SUBCONTRACTED SRVS	0000	NONE	KA60S	B371 PuSPS	Max Frontload	26.609.00	Dollars

Factors 26609 dol/for 10% remna

Line Item FF.3 - SFE Installation and Test

BOE

Estimators Experience - Technical and cost bases extracted from "Comparitive Study of Moisture Determination Methods", published in April 99, by Los Alamos National Laboratory. Report compiled by the Physical Organic Chemistry, Analytical Chemistry, Nuclear Materials Management and Control, Material Characterization, and Actinide Chemistry Groups.

Experience Item Desc - SFE Benchtop development, test, glovebox modification, planning, and installation

Breakdown of Cost Data: Item - SFE Installation Units - 1480 labor hours

Unit Cost - \$46,946 labor, \$4,200 ODC

Resource

Į.							
ces		Cost Element	Skill		Department	Curve	Ouantity Units
	750	STRAIGHT TIME BASE	C020 ELECTRICIANS	KA10H	371 Complex Steelworkers	Max Backload	96.00 Hours
	Factors	480 hrs	0.2 May 2000 EV Factor				
Į	750	STRAIGHT TIME BASE	C040 MAINTENANCE MACHINIST (incl Ex	KA10H	371 Complex Steelworkers	Max Backload	96.00 Hours
	Factors	480 hrs	0.2 May 2000 EV Factor				
Į	750	STRAIGHT TIME BASE	M010 FOREMEN / TEAM LEADS / GROUP	SA01S	SSOC 371 Closure Proiect	Max Backload	16.00 Hours
	Factors	80 hrs	0.2 May 2000 EV Factor				
Į	750	STRAIGHT TIME BASE	S010 CHEMISTS	SA01S	SSOC 371 Closure Proiect	Linear	48.00 Hours
	Factors	240 hrs	0.2 May 2000 EV Factor				
Į	750	STRAIGHT TIME BASE	T050 RADIATION CONTROL TECHNOLIG	I KA10H	371 Complex Steelworkers	Max Backload	8.00 Hours
	Factors	40 hrs	0.2 May 2000 EV Factor				
	750	STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KA10H	371 Complex Steelworkers	Linear	32.00 Hours
	Factors	160 hrs	0.2 May 2000 FV Factor				

Page 16 of 33 6/22/00 8:47:18 PM OFFICIAL USE ONLY WBS No: 1AAF06 Baseline Devl Proiect Rocky Flats Closure Project 1AFFF10000 1AAF Activity ID: WBS Filter **Baseline Cost and Basis of Estimate** Activity Filter Starts In FY P160 TECHNICAL WRITERS AND EDITOR KA60S B371 PuSPS A53 E-2 2.800.00 Dollars Max Backload Factors 40 hrs dol/hr SAFETY ENGINEERS KA10S B371 ESH&Q 1.400.00 Dollars A5H SUBCONTRACTED SRVS F120 Linear 70 dol/hr 20 hrs Line Item SYS - Contingency And Escalation BOE Resources Cost Element Skill Department Units Curve CON CONTINGENCY 0000 NONE ZDEPT No Department Linear 236.63 Dollars 236.632 Dollars ESC ESCALATION 161.50 Dollars 0000 NONE ZDEPT No Department Linear Factors 161.496 Dollars Activity ID: 1AFPP10000 Description: 3013 Can Procurement - Tech/QA Support (00) Cost Risk 1 Schedule Risk Line Item Description Quantity Units BOELabor Labor Hours Labor Cost Materials/ Sub Contingency Total Prime Burden Cost Total Cost Type Hours/Unit Total Total Cost & Escalation Cost PP.1 Can Verification/Receipt 1.00 each EE 80 80 2.949 41.000 43.949 1.434 45.383 SYS Contingency And Escalation 1.00 ea FF n 0 320 320 Λ 320 Total for Activity 1AFPP10000: 80 2.949 41.000 320 44.269 1.434 45.704 Line Item PP.1 - Can Verification/Receipt Estimators Experience - Paul Oppedal, project lead for can procurement. BOE Experience Item Desc - Estimate based upon similar work and testing of inner cans during 10 FY00. Breakdown of Cost Data: Item - Test runs of inner can within packaging system Units - 100 cans tested by 6 operators, 9 hour shifts, over 5 days, and SOEW support Unit Cost - 280 hrs * \$28.82/hr = \$8,070, 44 hours * \$70 dol/hr = \$3,080 Resources Cost Element Skill Department **Ouantity** Units Curve 750 STRAIGHT TIME BASE E110 QUALITY CONTROL ENGINEERS C102S Quality Assurance 80.00 Hours Linear 80 hrs/JH Factors E110 QUALITY CONTROL ENGINEERS KA60S B371 PuSPS 9.000.00 Dollars A57 LATA Linear Factors 120 hrs/BB 75 dol/hr A5H SUBCONTRACTED SRVS 0000 NONE KA60S B371 PuSPS 20.000.00 Dollars Linear 20000 dol/SRS IWO A5M TRAVEL/TRAIN/RELOCAT 0000 NONE KA60S B371 PuSPS Linear 12.000.00 Dollars 12000 dol Factors Line Item SYS - Contingency And Escalation BOE Cost Element Resources Skill Department Curve Quantity Units CON CONTINGENCY 0000 NONE ZDEPT No Department Linear 186.72 Dollars Factors 186.723 Dollars ESC ESCALATION 0000 NONE ZDEPT No Department Linear 133.70 Dollars 133.699 Dollars Factors Activity ID: 1AFPP20000 Description: 3013 Can Procurement - Vendor (00) Cost Risk 2 Schedule Risk Line Item Description Quantity Units BOELabor Labor Hours Labor Cost Materials/ Sub Contingency Total Prime Burden Cost Total Cost Hours/Unit Total Total & Escalation TypeCost Cost PP2.1 611.548 Vendor Contract - Rmng, 22May-30Sep VQ 0 611.548 0 611.548 1.00 each SYS Contingency And Escalation 1.00 ea FF n Λ 2.695 2.695 0 2.695 611.548 2.695 Total for Activity 1AFPP20000: Λ 614.243 Λ 614.243 Line Item PP2.1 - Vendor Contract - Rmng. 22May-30Sep Vendor Name - Westinghouse Electric Company, GTSD, Engineered Products Department BOE Vendor Ouote - \$2,843,474 (\$356,734 FY99 & \$2,786,740 FY00) Quote Received by - Jim McGill, KH Subcontract Administrator Item being guoted - DOE-Std-3013 Plutonium/Oxide Packaging Containers

Other Info - Contract Number KH900907ME

WBS No: 1AAF06 Proiect Baseline Devl **Rocky Flats Closure Project** Activity ID: 1AFPP20000 WBS Filter 1AAF **Baseline Cost and Basis of Estimate** Activity Filter

NOTE - BCP-00-1096 modifies the EPD vendor contract as follows:

- 1. Outer and convenience can scope retained \$1,681,400
- 2. Allowable tooling costs for close-out \$188,000
- 3. Buy-out of inner can blanks \$167,000
- 4. Other contract close-out costs \$250,000
- 5. Inner can capability development (100 cans) \$68,000

12 Jun 00 - MODIFICATION OF BOE TO MEET TARGET

Vendor contract reduced by \$282K to meet FY00 target. Planned delivery of Graham inner containers deferred until FY01.

Resource

rces	Cost Element	Skill	Department	Curve	Ouantity	Units
	A5C SUPPLIES	0000 NONE	KA60S B371 PuSPS	Front Loaded	611.548.00	Dollars

Factors 611548 dol

Line Item SYS - Contingency And Escalation

BOE

Resources

es		Cost Element	Skill			Department	Curve	Ouantity Units
	CON	CONTINGENCY	0000	NONE	ZDEPT	No Department	Linear	1.580.97 Dollars
	Factors	1580.97 Dollars		•			·	
	ESC	ESCALATION	0000	NONE	ZDEPT	No Department	Linear	1.114.49 Dollars

Factors 1114.49 Dollars

Activity ID: 1AFPP30000 Description: Spares Identification and Procurement

Activity ID: 1AFI	PP30000 Description: Spares Identification and Pro	curement						Cost Risk	2 Schedule R	Pisk 2		
Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
1.9.8	Maintenance Activities - Stab	0.40	each	EE	0	0	0	24.000	0	24.000	0	24.000
SYS	Contingency And Escalation	1.00	ea	EE	0	0	0	0	141	141	0	141
	Total for Activity 1AFPP30000:					0	0	24.000	141	24.141	0	24.141

Line Item 1.9.8 - Maintenance Activities - Stab

BOE

Estimators Experience and Historical Data from B371 Baseline Maintenance - James Strelow, PuSPS Project Lead, 10 years experience within DOE complex including major process start-up experience at SRS on the RTF Project and Y-12 on the Enriched Uranium Project. Experience Item Desc - Maintenance Activities (Includes the development and approval of corrective maintenance and associated post-maintenance tests. Periodic instrument calibration and preventive maintenance requirements will be identified and set up. A spare parts list and inventory will be established.) Breakdown of Cost Data:

Item - Maintenance Activities Units - ~70 elements Unit Cost - 7.7 hrs & \$2,327 Unit Cost Adjustment factor - n/a Revised Unit Cost - n/a

Basis for adjustment - n/a

Resources

5		Cost Element		Skill	Department	Curve	Quantity	Units
	A5C	SUPPLIES	0000	NONE	KA60S B371 PuSPS	Linear	60.000.00	Dollars

Factors 60000 Dollars

Line Item SYS - Contingency And Escalation

BOE

Resources

es		Cost Element		Skill		Department	Curve	Ouantity Units	
	CON	CONTINGENCY	0000	NONE	ZDEPT	No Department	Linear	82.60 Dollars	
j	Factors	82.6039 Dollars							_
	ESC	ESCALATION	0000	NONE	ZDEPT	No Department	Linear	58.23 Dollars	

58.2307 Dollars Factors

Activity ID: 1AF	QQ10000 Description: System Security/QA Require	Cost Risk 1 Schedule Risk 1										
Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost	1	
QQ.1	K-H Construction Craft	1.00	each		100	100	2.153	0	0	2.153	1.345	3.498
Total for Activity 1AFQQ10000:					100	2.153	0	0	2.153	1.345	3.498	

Line Item QQ.1 - K-H Construction Craft

Historical Data Source - PIRS, Actuals costs incurred during period 1 Oct 99 thru 21 May 00. BOE

Starts In FY

WBS No: 1AAF06 Baseline Devl Proiect **Rocky Flats Closure Project** Activity ID: 1AFQQ10000 WBS Filter 1AAF **Baseline Cost and Basis of Estimate** Activity Filter Item Desc - Continuation of same activity. Resources Cost Element Department Curve C020 ELECTRICIANS 750 STRAIGHT TIME BASE K777C Construction Linear Factors 40 hrs C090 STRUCTURAL AND METAL WORKE | K777C | Construction 750 STRAIGHT TIME BASE 60 Factors 2 Cahadula Piels

ACTIVITY ID: 1AF	Description: Material Campaign Mgmt (OC))						Cost Risk	2 Schedule R	ask 3		
Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
SS1.1	Material Campaign Mgt ('00) per month	4.00	mo	EE	0	0	0	115.200	0	115.200	0	115.200
SYS	Contingency And Escalation	1.00	ea	EE	0	0	0	0	821	821	0	821
	al for Activ	ty 1AFSS10	000:		0	0	115.200	821	116.021	0	116.021	

Line Item SS1.1 - Material Campaign Mgt ('00) per month

BOE

Estimators Experience - Steve Wing, PuSPS Technical Lead and Paul Fletcher have several years RFETS experience in nuclear material processing and operations and have worked on the HSP 31.11 Project administering all plutonium metal on sight. This experience encompassed multiple projects across the sight. During FY99, they have been the principle contributors in the development of the Material Campaign Management Plan for operation of the PuSPS.

Experience Item Desc - PuSPS Material Campaign Management (includes specification, gathering, and transfer of Pu metal and oxide feed to and throughout the process; up through final vault storage)

Breakdown of Cost Data:

Item - Material Campaign Management

Units - months

Unit Cost - 2,526 hrs/mo & \$21,760/mo Unit Cost Adjustment Factor - N/A Revised Unit Cost - N/A

Basis for Adjustment - N/A

Resources

es		Cost Element	Skill	Department	Curve	Quantity Units
	A57	LATA	E130 OTHER ENGINEERS	KA60S B371 PuSPS	Linear	28,800.00 Dollars
			0.0			

Factors 360 hrs/PO&LP 80 dol/hr

Line Item SYS - Contingency And Escalation

BOE

Resources	Cost Element		Skill		Department	Curve	Ouantity	Units
	CON CONTINGENCY	0000	NONE	ZDEPT	No Department	Linear	481.73	Dollars
	Factors 481.727 Dollars							
	ESC ESCALATION	0000	NONE	ZDEPT	No Department	Linear	339.59	Dollars

Factors 339.589 Dollars

WBS No: 1AAF	07 Title: PuSPS RA and Support (0	1)									
Activity ID: 1AF	DD30050 Description: Pre-Operational Support - P	ck/Stab (01)					Cost Risk	1 Schedule F	Pisk 1		
Line Item	Description	Quantity Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
			Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
DD3.2	Pre-Ops Support - Operators	1.00 mo	EE	8.450	8.450	198.923	48.450	0	247.373	94.886	342.259
DD3.3	Pre-Ops - OT	1.00 each		390	390	12.686	0	0	12.686	6.051	18.736
SYS	Contingency And Escalation	1.00 ea	EE	0	0	0	0	19.138	19.138	0	19.138
	To	tal for Activity 1AFDD30	050:		8.840	211.608	48.450	19.138	279.197	100.937	380.134

Line Item DD3.2 - Pre-Ops Support - Operators

BOE

Estimators Experience - James Strelow, PuSPS Project Lead, 10 years experience within DOE complex including major process start-up experience at SRS on the RTF Project and Y-12 on the Enriched Uranium Project.

Experience Item Desc - LOE for direct and indirect operating staff during testing and readiness preparation and demonstration period.

Resources	Cost Element	Skill	Department	Curve	Quantity Units
	750 STRAIGHT TIME BASE	E130 OTHER ENGINEERS	SA01S SSOC 371 Closure Project	Linear	340.00 Hours
	Factors 2 SOE - Tech	170 hrs/SOE			
	750 STRAIGHT TIME BASE	M010 FOREMEN / TEAM LEADS / GROUP	SA01S SSOC 371 Closure Project	Linear	1,530.00 Hours
	Factors 9 Supry	170 hrs/Supry			

Starts In FY

Units

40.00 Hours

60.00 Hours

WBS No: Activity ID:	1AAF07 1AFDD30050			ockv Flats			WB	oiect Ba S Filter 1A ivity Filter *	seline Devl AF	S	arts In FY	
	750 STRAIGHT TIME BASE	M020 MANAGE	ERS (GRADE	69 - 72)	SA01S SS	OC 371 Closure		iviiv Filler	Linear		340.00 Hou	rs
	Factors 2 Ops/Dep Ops Mgr	170	hrs	100 121	- 0/10/10 100	00 07 1 010001	31 101001	-	Linour		0 10.00 1100	
	750 STRAIGHT TIME BASE Factors 37 RRTs			S OPERATOR (KA60H 37	PuSPS Steelv	vorkers		Linear		5.920.00 Hou	rs
	750 STRAIGHT TIME BASE	T050 RADIATI	ON CONTRO	DL TECHNOLIGI	KA10H 37	Complex Stee	lworkers		Linear		320.00 Hou	rs
	Factors 2 RCTs A52 TENERA		hrs/mo	EERS	KA60S B3				Linear		32.300.00 Dolla	ars
	Factors 2 SOEs - Electr A57 LATA	190 E070 MECHAN		IEERS	KA60S B3	71 PuSPS			Linear		16.150.00 Dolla	ars
	Factors 1 SOEs - Mech	190	hrs/SOE		85	dol/hr						
BOE	03.3 - Pre-Ops - OT Estimators Experience - James Strein RTF Project and Y-12 on the Enriche Experience Item Desc - LOE for directions	ed Uranium Proje	ect.				=				ience at SR	S on the
Resources	S Cost Element		Skill			Depart	ment		Curve	0	uantity U	nits
	751 OVERTIME BASE & PRE.	R010 CHEMIC		S OPERATOR (KA60H 37	PuSPS Steely	HEIR		Linear		370.00 Hou	
	Factors 37 RRTs	. 10	hrs/RRT									
	751 OVERTIME BASE & PRE.	T050 RADIATI	ON CONTRO	OL TECHNOLIGI	KA10H 37	Complex Stee	lworkers		Linear		20.00 Hou	rs
	Factors 2 RCTs	10	hrs/mo									
Line Item SY	S - Contingency And Escalation											
Resources	Cost Element		Skill			Depart	ment		Curve	0	uantity U	nits
Resources	CON CONTINGENCY	0000 NONE	Skiii		ZDEPT No		meni		Linear		11,547.50 Dolla	
	Factors 11547.5 Dollars	1 0000 INCINE			ZDEI I INO	Department			Lincai		11,047.00	213
	ESC ESCALATION	0000 NONE			ZDEPT No	Department			Linear		7,590.93 Dolla	ars
	Factors 7590.93 Dollars											
Activity ID:	1AFDD40000 Description: Conduc	t PuSPS Internal Ass	essment					Cost Risk	2 Schedule R	isk 2		
Line Iten	n Description		Quantity	Units BOE Type		Labor Hours Total	Labor Cost Total	Materials/ Sub Cost	Contingency & Escalation	Total Prime Cost	Burden Cost	Total Cost
1.DD	Internal RA		1.00 ea		120			15.000	& Escatation 0	19.105	1.958	21.063
SYS	Contingency And Escalation		1.00 ea		120		4.103	13.000	1.126	1.126		
010	OSMINGENEY AND ESCALATION	Tot		1AFDD40000:		120	4.105	15.000		20.232		
Line Item 1.D	DD - Internal RA	100	ai ioi 7 totivity	17 ti DD 10000.		120	1.100	10.000	1.120		1.000	
вое	Estimators Experience - James Stre RTF Project and Y-12 on the Enriche Experience Item Desc - Disposition identified by the Readiness Demonst	ed Uranium Proje Findings - Pkg.	ect.									
Resources	S Cost Element		Skill			Depart	ment		Curve	0	uantity U	nits
Resources	750 STRAIGHT TIME BASE Factors 120 hrs	E130 OTHER E			KA10S B3		meni		Linear		120.00 Hou	
	A5H SUBCONTRACTED SRVS Factors 15000 dol	E080 NUCLEA	R (CRITICAL	ITY) ENGINEER	KA60S B3	71 PuSPS			Linear		15.000.00 Dolla	ars
	'S - Contingency And Escalation											
BOE												
Resources			Skill			Depart	ment		Curve	0		nits
	CON CONTINGENCY	0000 NONE			ZDEPT No	Department			Linear		683.51 Dolla	ars
	Factors 683.506 Dollars ESC ESCALATION	0000 NONE			ZDEPT No	Department			Linear		442.92 Dolla	ars
	Factors 442.916 Dollars											
Activity ID:	1AFDD50000 Description: Disposit	ion Findings & Appro	val for Hot St	tartup		1	T	Cost Risk	2 Schedule R	isk 3	T	т
Line Iten	n Description		Quantity	Units BOE Type	Labor Hours/Unit	Labor Hours Total	Labor Cost Total	Materials/ Sub Cost	Contingency & Escalation	Total Prime Cost	Burden Cost	Total Cost
				Pag	e 20 of 33				6/22/00 8:47:	21 PM	OFFICIA	L USE ONL

WBS No: 1AAF07 Baseline Devl Proiect Rocky Flats Closure Project 1AFDD50000 1AAF Activity ID: WBS Filter **Baseline Cost and Basis of Estimate** Activity Filter, Starts In FY 1.11.5 Disposition Findings - Pkg. 0.50 each EE 40 1.480 20 750 22 230 706 22.936 FF 1 227 1 227 SYS Contingency And Escalation 1.00 ea 1 227 Total for Activity 1AFDD50000: 40 1.480 23.457 24.163 20.750 1 227 706 Line Item 1.11.5 - Disposition Findings - Pkg. Estimators Experience - James Strelow, PuSPS Project Lead, 10 years experience within DOE complex including major process start-up experience at SRS on the BOE RTF Project and Y-12 on the Enriched Uranium Project. Experience Item Desc - Disposition Findings - Pkg. (includes the response, approval, implementation, and verification of pre-start and post-start findings identified by the Readiness Demonstration Team. Units Resources Cost Element Skill Department Curve **Quantity** 750 STRAIGHT TIME BASE M040 MANAGERS (GRADE 64 - 68) SA01S SSOC 371 Closure Project 80.00 Hours Linear 80 hrs E070 MECHANICAL ENGINEERS 12 000 00 Dollars KA60S B371 PuSPS A5H SUBCONTRACTED SRVS Linear 12000 dol A5H SUBCONTRACTED SRVS E080 NUCLEAR (CRITICALITY) ENGINEER KA10S B371 ESH&Q Linear 21.000.00 Dollars 21000 dol Factors A5H SUBCONTRACTED SRVS P150 TRAINERS KA60S B371 PuSPS 8.500.00 Dollars Linear 8500 dol Factors Line Item SYS - Contingency And Escalation BOE Resources Cost Flement Skill Department Curve Quantity Units CON CONTINGENCY 0000 NONE ZDEPT No Department Linear 744.27 Dollars Factors 744.271 Dollars
ESC ESCALATION 0000 NONE ZDEPT No Department Linear 482.29 Dollars 482,292 Dollars Factors Activity ID: 1AFDD70000 Description: Combined DOE/KH Readiness Assessment 2 Schedule Risk Cost Risk BOE Labor Hours Labor Cost Materials/ Sub Total Prime Line Item Description **Ouantity** Units Labor Contingency Burden Cost Total Cost Hours/Unit & Escalation TypeTotal Total Cost Cost 1.DD.2 Combined DOE/KH RA 0.50 each EE 80 40 1.354 15.550 16.904 646 17.549 SYS Contingency And Escalation 1.00 ea FF 0 0 938 938 0 938 1.354 15.550 Total for Activity 1AFDD70000: 40 938 17.842 646 18.488 Line Item 1.DD.2 - Combined DOE/KH RA Estimators Experience - James Strelow, Pusps Project Lead, 10 years experience within DOE complex including major process start-up experience at SRS on the BOE RTF Project and Y-12 on the Enriched Uranium Project. Experience Item Desc - Includes resources to support KH/DOE combined Operational Readiness review (includes the demonstration, response, approval, implementation, and verification of pre-start and post-start findings identified by the Readiness Demonstration Team. Resources Cost Element Skill Department Curve Quantity Units 750 STRAIGHT TIME BASE P090 INDUSTRIAL HYGIENISTS SA01S SSOC 371 Closure Project Linear 80.00 Hours 80 hrs Factors A57 LATA E070 MECHANICAL ENGINEERS KA10S B371 ESH&Q Linear 8.500.00 Dollars 8500 dol Factors P150 TRAINERS KA60S B371 PuSPS 5.600.00 Dollars A57 LATA Linear 80 dol/hr Factors hrs A5H SUBCONTRACTED SRVS MECHANICAL ENGINEERS KA60S B371 PuSPS Linear 8.500.00 Dollars Factors 8500 dol E080 NUCLEAR (CRITICALITY) ENGINEER KA10S B371 ESH&Q A5H SUBCONTRACTED SRVS 8 500 00 Dollars Linear Factors 8500 dol Line Item SYS - Contingency And Escalation BOE Cost Element Units Resources Skill Department Curve **Ouantity** CON CONTINGENCY 0000 NONE ZDEPT No Department 569.47 Dollars Linear Factors 569,473 Dollars

WBS No: 1AAF07 Proiect Baseline Devl **Rocky Flats Closure Project** Activity ID: 1AFDD70000 WBS Filter 1AAF **Baseline Cost and Basis of Estimate**

Activity Filter Starts In FY ESC ESCALATION 0000 NONE ZDEPT No Department Linear 369.02 Dollars

Factors 369.022 Dollars

WBS No: 1AAF0	8 PuSPS Operations and Su	pport (01)										
Activity ID: 1AFSS25000 Description: PuSPS Operational Records (01) Cost Risk 1 Schedule Risk 1												
Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours		Materials/ Sub	0 2		Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
SS25.1	PuSPS Operational Records ('01)	11.00	mo	EE	0	0	0	131.670	0	131.670	0	131.670
SYS	Contingency And Escalation	1.00	ea	EE	0	0	0	0	11.574	11.574	0	11.574
	Total for Activity 1AFSS25000:						0	131.670	11.574	143,244	0	143.244

Line Item SS25.1 - PuSPS Operational Records ('01)

BOE

Estimators Experience - Steve Wing, PuSPS Technical Lead and Paul Fletcher have over 35 years of RFETS operations experience and have worked on the HSP 31.11 Project administering all plutonium metal on sight. This experience encompassed multiple projects across the sight. During FY99, they have been the principle contributors in the development of the Material Campaign Management Plan for operation of the PuSPS.

Experience Item Desc - PuSPS Operational Records (Coordinates the assemblage and maintenance of all required history, source of material, thermal treatment, packaging, measurement, and surveillance records for plutonium materials and containers)

Breakdown of Cost Data: Item - Operational Records

Units - months

Unit Cost - \$36,310/mo

Unit Cost Adjustment factor - N/A

Revised Unit Cost - N/A Basis for adjustment - N/A

Resources

es		Cost Element	Skill	Department	Curve	Quantity Units
	A57 LAT		E130 OTHER ENGINEERS	KA60S B371 PuSPS	Linear	11.970.00 Dollars
	Factors 7	'0 dollars/hr	171 hours			

Line Item SYS - Contingency And Escalation

BOE

Resources

es		Cost Element		Skill		Department	Curve	Ouantity	Units
	CON	CONTINGENCY	0000	NONE	ZDEPT	No Department	Linear	7.457.85	Dollars
4	Factors	7457.85 Dollars							
L	ESC	ESCALATION	0000	NONE	ZDEPT	No Department	Linear	4.116.12	Dollars

Factors 4116.12 Dollars

Activity ID: 1AF	SS28000 Description: Maintenance of PuSPS Ope	peration's Bases (01)						Cost Risk	1 Schedule R			
Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
SS28.1	Maintenance of Ops Bases (01)	11.00	11.00 mo E		0	0	0	112.200	0	112.200	0	112.200
SYS	Contingency And Escalation		1.00 ea		0	0	0	0	9.863	9.863	0	9.863
	Total for Activity 1AFSS28					0	0	112.200	9.863	122.063	0	122.063

Line Item SS28.1 - Maintenance of Ops Bases (01)

BOE

Estimators Experience - Steve Wing, PuSPS Technical Lead and Paul Fletcher have over 35 years of RFETS operations experience and have worked on the HSP 31.11 Project administering all plutonium metal on sight. This experience encompassed multiple projects across the sight. During FY99, they have been the principle contributors in the development of the Material Campaign Management Plan for operation of the PuSPS.

Experience Item Desc - Maintenance of Ops Bases (includes maintenance of the safety, operational, training and qualification, quality, environmental, safeguards and security, waste, and maintenance requirements necessary for the processing of Pu metal and oxide throughout the life of the project) Breakdown of Cost Data:

Item - Maintenance of Ops Bases

hrs

Units - months

120

Unit Cost - \$10,000/mo

Resources	Cost Element			Skill		Department	Curve	Ouantity	Units
	A5H	SUBCONTRACTED SRVS	E080	NUCLEAR (CRITICALITY) ENGINEER	KA10S	B371 ESH&Q	Linear	10.200.00	Dollars

dol/hr

Line Item SYS - Contingency And Escalation

Factors

BOE

Possures Cost Flowart Still Dengativent Curve Quantity Units	Resources Cost Element Skill Department Curve Quantity Units	Resources	Cost Element	Skill	Department	Curve	Quantity	Units
--	--	-----------	--------------	-------	------------	-------	----------	-------

WBS No: Activity ID:	1AAF08 1AFSS28000			ckv Flats eline Cost a			WE		seline Devl AF	St	arts In FY *	
	CON CONTINGENCY	0000 NONE			ZDEPT No	Department			Linear		6.355.06 Dollar	rs
	Factors 6355.06 Dollars											
	ESC ESCALATION	0000 NONE			ZDEPT No	Department			Linear		3.507.47 Dollar	rs
Activity ID:	Factors 3507.47 Dollars 1AFZZ10000 Description: Operate	PuSPS (01)						Cost Risk	5 Schedule R	Risk 5		
Line Item	n Description		Quantity U	Jnits BOE Type	Labor Hours/Unit	Labor Hours Total	Labor Cost Total	Materials/ Sub Cost	Contingency & Escalation	Total Prime Cost	Burden Cost	Total Cost
SYS	Contingency And Escalation		1.00 ea	EE	0	0	0		308.054	308.054	0	308.054
ZZ1.1	Shift Ops (01)		11.00 mo	EE	7.523	82.753	1.900.574			2.428.574		3.241.32
ZZ1.2	Ops - OT (01)		0.00 each		#Num	0						
ZZ1.3	Operate SFE (01)		10.00 mo	EE	280	2.800	71.508	0		71.508	30.579	102.08
		Tot	al for Activity 1A	FZZ10000:		85.553	1.972.082			2.808.135		3.651.46
Line Item SYS BOE	S - Contingency And Escalation											
Resources	S Cost Element		Skill			Depart	ment		Curve	0	uantity Uni	its
	CON CONTINGENCY	0000 NONE			ZDEPT No	Department			Linear	20	05.042.10 Dollar	rs
	Factors 205042 Dollars											
	ESC ESCALATION	0000 NONE			ZDEPT No	Department			Linear	10	03.011.80 Dollai	rs
	Factors 103012 Dollars											
Line Item ZZ1	1.1 - Shift Ops (01)											
BOE	Estimate based upon campaign model Management Plan", maintained by Par			roughput t	me against	total mate	rial quanti	ities to be	processed.	Ref: "Pus	SPS Material	. Campaign
Resources	S Cost Element		Skill			Depart	ment		Curve	0	uantity Uni	its
	750 STRAIGHT TIME BASE	E130 OTHER	ENGINEERS		KA60S B37	'1 PuSPS			Linear		151.00 Hours	3
	Factors 151 SOE hrs/MJ	, , , , , , , , , , , , , , , , , , , ,			, , , , , , , , , , , , , , , , , , , ,							
	750 STRAIGHT TIME BASE	M010 FOREME	EN / TEAM LEAI	DS / GROUP	KA10S B37	'1 ESH&Q			Linear		85.00 Hours	3
	Factors 1 Suprv/RCT	85	hrs/Suprv								1	
	750 STRAIGHT TIME BASE	M010 FOREM		DS / GROUP	SA01S SS	OC 371 Closur	e Proiect		Linear		1.530.00 Hours	3
	Factors 9 Suprv	170	hrs/Suprv									
	750 STRAIGHT TIME BASE		ERS (GRADE 69	9 - 72)	SA01S SS	OC 371 Closur	e Proiect		Linear		170.00 Hours	3
	Factors 1 Ops/Dep Mar	170	hrs/Mar									
	750 STRAIGHT TIME BASE		AL SYSTEMS C	DPERATOR (KA60H 371	PuSPS Steely	vorkers		Linear		4.530.00 Hours	S
	Factors 30 RRTs	151	hrs/RRT								1	
	750 STRAIGHT TIME BASE	T050 RADIATI		TECHNOLIGI	KA10H 371	Complex Stee	lworkers		Linear		1.057.00 Hours	6
	Factors 7 RCTs	151	hrs/RCT		1/1055 -							
	A52 TENERA	•	NICAL ENGINE	=RS	KA60S B37	1 PuSPS			Linear	3	36.000.00 Dolla	rs
	Factors 480 SOE hrs/PF.JK.RW	75	dol/hr	20	1/4000	D 050					40 000 00	
	A5H SUBCONTRACTED SRVS	•	ICAL ENGINEE	KS	KA60S B37	1 PuSPS			Linear	11	12.000.00 Dolla	rs
. : 14: · · ·	Factors 160 SOE hrs/JB	75	dol/hr									
Line Item ZZ1 BOE	1.2 - Ops - OT (01) Estimate based upon campaign model	projections for	r process th	roughput ti	me against	total mate	rial quanti	ities to be	processed.	Ref: "Pus	SPS Material	Campaign
DOL	Management Plan", maintained by Par	ul Oppedal, x54										
Resources			Skill			Depart	ment		Curve	O	uantity Uni	
	751 OVERTIME BASE & PRE.	M010 FOREME	EN / TEAM LEAI	DS / GROUP	KA10S B37	1 ESH&Q			Linear		20.00 Hours	3
	Factors 1 Suprv/RCT	20	hrs/Suprv					<u> </u>			1	
	751 OVERTIME BASE & PRE.	M010 FOREM	EN / TEAM LEAI	DS / GROUP	SA01S SS	OC 371 Closure	e Proiect		Linear		180.00 Hours	3
	Factors 9 Suprv	20	hrs/Suprv								1	
	751 OVERTIME BASE & PRE.	M020 MANAGI		9 - 72)	SA01S SS	OC 371 Closure	e Proiect		Linear		40.00 Hours	3
	Factors 2 Ops/Dep Mar	20	hrs/Mar								1	
	751 OVERTIME BASE & PRE.	R010 CHEMIC	AL SYSTEMS C	DEDATOR (KA60H 271	DUCDO Charle	vorkoro		Linear		740 0011 1000	
	Factors 37 RRTs	20	hrs/RRT	PERAIURI	INAUUII 37 I	PuSPS Steely	voikeis		LIIIGAI		740.00 Hours	>

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WBS No: 1AAF08
Activity ID: 1AFZZ10000

Rockv Flats Closure Project
Baseline Cost and Basis of Estimate

WBS Filter
1AAF
Activity Filter

*

Baseline Devl

WBS Filter
1AAF

751 OVERTIME BASE & PRE. T050 RADIATION CONTROL TECHNOLIGI KA10H 371 Complex Steelworkers Linear 140.00 Hours

Factors 7 RCTs 20 hrs/RCT

Line Item ZZ1.3 - Operate SFE (01)

BOE

Estimate based upon campaign model projections for process throughput time against total material quantities to be processed. Ref: "PuSPS Material Campaign Management Plan", maintained by Paul Oppedal, x5462, T371C.

Resources

s		Cost Element		Skill		Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	M010	FOREMEN / TEAM LEADS / GROUP	SA01S	SSOC 371 Closure Proiect	Linear	80.00	Hours
I	actors	80 hr							
	750	STRAIGHT TIME BASE	R010	CHEMICAL SYSTEMS OPERATOR (KA10H	371 Complex Steelworkers	Linear	120.00	Hours
I	actors	120 hrs							
L	750	STRAIGHT TIME BASE	S010	CHEMISTS	SA01S	SSOC 371 Closure Proiect	Linear	80.00	Hours

Factors 80 hr

WBS No: 1AAF	<u> 7 Title:</u> Material Campaign Manage	ement (01)	ment (01)									
Activity ID: 1AF	FF10050 Description: Impl Supercritical Fluid Extra	ction (SFE	(01)					Cost Risk 4 Schedule Risk 4				
Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
FF.15	SFE Installation and Test	1.00	each	EE	720	720	17.071	1.241	0	18.312	9.273	27.586
FF.25	SFE Operations Basis	1.00 each		EE	20	20	684	16.200	0	16.884	326	17.211
SYS	Contingency And Escalation	1.00	ea	EE	0	0	0	0	2.440	2.440	0	2.440
	Tot	al for Activi	ty 1AFFF100	050:		740	17.756	17.441	2.440	37.636	9.600	47.236

Line Item FF.15 - SFE Installation and Test

BOE

Estimators Experience - Technical and cost bases extracted from "Comparitive Study of Moisture Determination Methods", published in April 99, by Los Alamos National Laboratory. Report compiled by the Physical Organic Chemistry, Analytical Chemistry, Nuclear Materials Management and Control, Material Characterization, and Actinide Chemistry Groups.

Experience Item Desc - SFE Benchtop development, test, glovebox modification, planning, and installation

Breakdown of Cost Data: Item - SFE Installation Units - 720 labor hours

Unit Cost - \$23,453 labor, \$1,400 ODC

Resources

Cost Element	Skill	Department	Curve	Ouantity Units
750 STRAIGHT TIME BASE	C020 ELECTRICIANS	K777C Construction	Linear	180.00 Hours
Factors 180 hrs				
750 STRAIGHT TIME BASE	C040 MAINTENANCE MACHINIST (incl Exp	K777C Construction	Linear	180.00 Hours
Factors 180 hrs				
750 STRAIGHT TIME BASE	M010 FOREMEN / TEAM LEADS / GROUP	SA01S SSOC 371 Closure Project	Linear	40.00 Hours
Factors 40 hrs				
750 STRAIGHT TIME BASE	S010 CHEMISTS	SA01S SSOC 371 Closure Project	Linear	160.00 Hours
Factors 160 hrs				
750 STRAIGHT TIME BASE	T050 RADIATION CONTROL TECHNOLIGI	KA10H 371 Complex Steelworkers	Linear	160.00 Hours
Factors 160 hrs				
A53 E-2	P160 TECHNICAL WRITERS AND EDITOR	KA60S B371 PuSPS	Linear	620.50 Dollars
Factors 10 hrs			0.73 January 200	0 Earned Value Factor
A5H SUBCONTRACTED SRVS	E080 NUCLEAR (CRITICALITY) ENGINEER	R KA60S B371 PuSPS	Linear	620.50 Dollars
Factors 10 hrs	85 dol/hr		0.73 January 200	0 Earned Value Factor

Line Item FF.25 - SFE Operations Basis

BOE

Estimators Experience - Technical and cost bases extracted from "Comparitive Study of Moisture Determination Methods", published in April 99, by Los Alamos National Laboratory. Report compiled by the Physical Organic Chemistry, Analytical Chemistry, Nuclear Materials Management and Control, Material Characterization, and Actinide Chemistry Groups.

Experience Item Desc - SFE Benchtop development, test, glovebox modification, planning, and installation

Breakdown of Cost Data: Item - SFE Installation Units - 720 labor hours

Unit Cost - \$23,453 labor, \$1,400 ODC

Resources	Cost Element	Skill	Department	Curve	<i>Ouantity</i>	Units	

Starts In FY

WBS No: Activity ID:	1AAF09 1AFFF10050			Closure P		WE	S Filter 1.	aseline Devl AAF					
	TEO OTRAIGUE TIME RAGE	E400	THE ENGINE			01010 000	0.074.01		tivity Filter *	1.	St	arts In FY *	
	750 STRAIGHT TIME BASE Factors 20 hrs	I E130 IO	THER ENGIN	EEKS		SA015 SSC	C 371 Closure	e Proiect		Linear		20.00 Hours	i
	A57 LATA	P160 TE	ECHNICAL WE	RITERS AND E	DITOR	KA60S B37	1 PuSPS			Linear		4.200.00 Dollar	·q
	Factors 70 dol/hr		60 hrs		DITOR	10.000 1001	114010			Lilloui		1.200.001201101	
	A5H SUBCONTRACTED SRVS			TICALITY) ENG	SINEER	KA60S B37	1 PuSPS			Linear		6.900.00 Dollar	'S
	Factors 115 dol/hr		60 hrs									-	
	A5H SUBCONTRACTED SRVS		AFETY ENGIN	IEERS		KA60S B37	1 PuSPS			Linear		5.100.00 Dollar	'S
	Factors 85 dol/hr		60 hrs										
	- Contingency And Escalation												
BOE													
Resources	Cost Element		Skil	l .			Departi	ment		Curve	0	uantity Uni	
	CON CONTINGENCY	0000 N	ONE			ZDEPT No I	Department			Linear		1.497.62 Dollar	'S
	Factors 1497.62 Dollars	I h				I I							
	ESC ESCALATION	0000 N	ONE			ZDEPT No I	Department			Linear		941.97 Dolla	S
Activity ID:	Factors 941.967 Dollars 1AFPP10050 Description: 3013 Car	Droouromo	ont Tooh/OA	Support (01)					Cost Risk	1 Schedule Ri.	sk 1		
		Procureme			1			I			•	I I	
Line Item	Description		Quant	ity Units	BOE	Labor Hours/Unit	Labor Hours Total	Labor Cost Total	Materials/ Sub	Contingency & Escalation	Total Prime Cost	Burden Cost	Total Cost
PP.15	Can Verification/Receipt		1	.00 each	Type EE	Hours/Unit	10tai 80	2.949	41.000	T 1	43.949	1.407	45.355
SYS	Contingency And Escalation			.00 each	FF	0	0	2.949		2.405	2.405		2.405
010	O THI I GOTO THE LOCALIST THE PROPERTY OF THE			ctivity 1AFPP10			80	2.949			46.353		47.760
Line Item PP.1	15 - Can Verification/Receipt												
BOE	Estimators Experience - Paul Oppeda: Experience Item Desc - Estimate base Breakdown of Cost Data: Item - Test runs of inner can with: Units - 100 cans tested by 6 operat Unit Cost - 280 hrs * \$28.82/hr = 5	ed upon si in packagi tors, 9 ho	<pre>imilar work ing system our shifts,</pre>	and testin	g of i	SOEW suppor		Y00.					
Resources	Cost Element		Skil	I .			Departi	ment		Curve	0	uantity Uni	its
	750 STRAIGHT TIME BASE	E110 Q	UALITY CONT	ROL ENGINEE	RS	C102S Qua	litv Assurance			Linear		80.00 Hours	3
	Factors 80 hrs/JH	1										1	
	A57 LATA			ROL ENGINEE	RS	KA60S B37	1 PuSPS			Linear		9.000.00 Dollar	S
	Factors 120 hrs/BB		75 dol/h	ır									
	A5H SUBCONTRACTED SRVS Factors 20000 dol/SRS IWO	0000 N	ONE			KA60S B37	1 PuSPS			Linear		20.000.00 Dollai	S
	Factors 20000 dol/SRS IWO A5M TRAVEL/TRAIN/RELOCAT	0000 N	ONE			KA60S B37	1 Duede			Linear		12.000.00 Dollar	
	Factors 12000 dol	I UUUU IIN	ONL			I NAOUS IDS/	I FUSES			Lilicai		12.000.00ID0IIai	5
Line Item SYS BOE	- Contingency And Escalation												
Resources	Cost Element		Skil	I .			Departi	ment		Curve	0	uantity Uni	its
	CON CONTINGENCY	0000 N	ONE			ZDEPT No [Department			Linear		1.450.82 Dollar	'S
	Factors 1450.82 Dollars											-	
	ESC ESCALATION	0000 N	ONE			ZDEPT No [Department			Linear		953.72 Dollar	'S
	Factors 953.722 Dollars												
Activity ID:	1AFPP20050 Description: 3013 Car	n Procureme	ent - Vendor (0	1)					Cost Risk	2 Schedule Ri.	sk 3		
Line Item	Description		Quant	ity Units	BOE Type	Labor Hours/Unit	Labor Hours Total	Labor Cost Total	Materials/ Sub Cost	Contingency & Escalation	Total Prime Cost	Burden Cost	Total Cost
PP2.1	Graham Vendor Contract (01)			.00 each	VQ	0	0	0			1.108.200		1.108.200
SYS	Contingency And Escalation			.00 ea	EE	0	0	0		59.264	59.264	0	59.264
l ino Itom DD2	1 Graham Vandar Contract (01)		Total for A	ctivity 1AFPP20	0050:		0	0	1.108.20	59.264	1.167.464	0	1.167.464
BOE	.1 - Graham Vendor Contract (01) Vendor Name - Graham Engineering												
BUE	Hame Standin Brightness Hig												

WBS No: 1AAF09 **Rocky Flats Closure Project** Activity ID: 1AFPP20050 **Baseline Cost and Basis of Estimate** Proiect WBS Filter Activity Filter Baseline Devl 1AAF

Starts In FY

Vendor Quote - \$1,514,700

Quote Received by - Kurt Kehler, PuSPS Project Manager - KH

Item being quoted - 2200 inner 3013 containers

12 Jun 00 - MODIFICATION TO MEET FY00 TARGET

\$282k IN Graham inner can deliveries deferred until FY01 and added to this activity.

Resources

es		Cost Element Skill		Skill		Department	Curve	Ouantity	Units
	A5H	SUBCONTRACTED SRVS	0000	NONE	KA60S	B371 PuSPS	Linear	1.108.200.00	Dollars

1108200 dol Factors

Line Item SYS - Contingency And Escalation

BOE

Resources

es		Cost Element		Skill		Department	Curve	Quantity	Units
	CON	CONTINGENCY	0000	NONE	ZDEPT	No Department	Linear	35.961.03	Dollars
	Factors	35961.0 Dollars							
	FSC	ESCALATION	0000	NONE	7DFPT	No Department	Linear	23 302 97	Dollars

Factors 23303

Activity ID: 1 A ESSONO

Description: Material Campaign Momt (01)

Cost Rick 2 Schodulo Risk

ACTIVITY ID. TALL	Description. Material Campaign Mgi	unit (OT)						Cost Risk Z Schedule Risk 3				
Line Item	Description	Quantity		BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
SS2.1	Material Campaign Mgt ('01)	12.00) mo	EE	0	0	0	307.200	0	307.200	0	307.200
SS2.2	Supplies for PuSPS Operation ('01)	11.00) mo	EE	0	0	0	361.900	0	361.900	0	361.900
SS2.3	Analytical Lab Sampling for Offsite	1.00	Deach	HC	0	0	0	780	0	780	0	780
SS2.4	Maintenance Support Contracts	1.00	Deach	VQ	0	0	0	112,000	0	112,000	0	112,000
SS2.5	Building Support - Eng/Maint	11.00	each	EE	320	3,520	97,495	70,125	0	167,620	45,788	213,409
SYS	Contingency And Escalation	1.00) ea	EE	0	0	0	0	56,176	56,176	0	56,176
		Total for Activ	Total for Activity 1AFSS20000:			3,520	97,495	852,005	56,176	1,005,676	45,788	1,051,464

Line Item SS2.1 - Material Campaign Mgt ('01)

BOE

Estimators Experience - Steve Wing, PuSPS Technical Lead and Paul Fletcher have several years RFETS experience in nuclear material processing and operations and have worked on the HSP 31.11 Project administering all plutonium metal on sight. This experience encompassed multiple projects across the sight. During FY99, they have been the principle contributors in the development of the Material Campaign Management Plan for operation of the PuSPS.

Experience Item Desc - PuSPS Material Campaign Management (includes specification, gathering, and transfer of Pu metal and oxide feed to and throughout the process; up through final vault storage)

Breakdown of Cost Data:

Item - Material Campaign Management

Units - months

Unit Cost - 2,526 hrs/mo & \$21,760/mo

Unit Cost Adjustment Factor - N/A

Revised Unit Cost - N/A

Basis for Adjustment - N/A

Additional Information:

- NMC - 374 hrs/mo

- First Line Supervisor - 94 hrs/mo

- RCTs - 374 hrs/mo

- Process Specialists - 748 hrs/mo

- First Line Supervisor - 188 hrs/mo

- Industrial Engineer - 188 hrs/mo x \$70/hr

- Supplies - \$8,600

- SPOs - 748 hrs/mo

Resource

ces			Cost Element		Skill			Department	Curve	Quantity	Units
	A57	LATA		E130	OTHER ENGINEERS		KA60S	B371 PuSPS	Linear	12.000.00	Dollars
	Factors	160	hrs/LP		. 75 dol/hr				 		
	A57	LATA		M020	MANAGERS (GRADE 69 - 72))	KA60S	B371 PuSPS	Linear	13.600.00	Dollars
	Factors	160	hrs/PO		85 dol/hr						

Line Item SS2.2 - Supplies for PuSPS Operation ('01)

Estimators Experience - Steve Wing, PuSPS Technical Lead and Paul Fletcher have several years RFETS experience in nuclear material processing and operations BOE

WBS No: 1AAF09 1AFSS20000 Activity ID:

Rocky Flats Closure Project Baseline Cost and Basis of Estimate

Proiect WBS Filter

1AAF Activity Filter

Baseline Devl

Starts In FY

and have worked on the HSP 31.11 Project administering all plutonium metal on sight. This experience encompassed multiple projects across the sight. During FY99, they have been the principle contributors in the development of the Material Campaign Management Plan for operation of the PuSPS. Experience Item Desc - Supplies for Material Campaign Management Breakdown of Cost Data: Item - Supplies Units - Months

Resources

Units
0.00 Dollars
0.00 Dollars
00

Factors 1000 dollars for tape, bags, etc.

Line Item SS2.3 - Analytical Lab Sampling for Offsite

Unit Cost - \$31,971/mo

Historical Data Source - FY98 Historical costs from B559 Analytical Labs - Virgene Ideker. Costs estimated from P&I Reporting System (002) Item Desc - Offsite analytical samples

Breakdown of Historical Data: Item - Analytical Samples

Units - 1

Unit Cost - \$2,310

Unit Cost Adjustment factor - .33

Revised Unit Cost - \$762.30

Basis for adjustment - Percentage based upon estimate received from Virgene Ideker with 559 labs.

Resources

s	Cost Element	Skill	Department	Curve	Ouantity Units
	A5H SUBCONTRACTED SRVS	S010 CHEMISTS	KA60S B371 PuSPS	Linear	779.70 Dollars
	- 222				

percent estimated from Virgene Factors 0.33 2310 FY98 costs for 11 samples 1 02283 -- FY00 Escalation --

Line Item SS2.4 - Maintenance Support Contracts

BOE

Historical Data Source - PIRS, Actuals costs incurred during period 1 Oct 99 thru 21 May 00. Item Desc - Continuation of same activity.

Resources

es	Cost Element	Skill	Department	Curve	Ouantity	Units
	A5H SUBCONTRACTED SRVS	0000 NONE	KA60S B371 PuSPS	Linear	112.000.00	Dollars

Factors 112000 dol

Line Item SS2.5 - Building Support - Eng/Maint

BOE

Estimators Experience - Steve Wing, PuSPS Technical Lead and Paul Fletcher have several years RFETS experience in nuclear material processing and operations and have worked on the HSP 31.11 Project administering all plutonium metal on sight. This experience encompassed multiple projects across the sight. During FY99, they have been the principle contributors in the development of the Material Campaign Management Plan for operation of the PuSPS.

Experience Item Desc - PuSPS Material Campaign Management (includes specification, gathering, and transfer of Pu metal and oxide feed to and throughout the process; up through final vault storage)

Breakdown of Cost Data:

Item - Material Campaign Management

Units - months

Unit Cost - 2,526 hrs/mo & \$21,760/mo

Unit Cost Adjustment Factor - N/A

Revised Unit Cost - N/A

Basis for Adjustment - N/A

Additional Information:

- NMC 374 hrs/mo
- First Line Supervisor 94 hrs/mo
- RCTs 374 hrs/mo
- Process Specialists 748 hrs/mo
- First Line Supervisor 188 hrs/mo

Page 27 of 33 6/22/00 8:47:26 PM OFFICIAL USE ONLY WBS No: 1AAF09 Activity ID: 1AFSS20000

Rockv Flats Closure Project Baseline Cost and Basis of Estimate

Proiect
WBS Filter
Activity Filter

Baseline Devl 1AAF

Starts In FY

- Industrial Engineer - 188 hrs/mo x \$70/hr - Supplies - \$8,600

- SPOs - 748 hrs/mo

Resources

s	Cost Element		Skill		Department	Curve	Quantity	Units
	750 STRAIGHT TIME BASE	C020	ELECTRICIANS	KA20H	371/374 Facility Mamt Steelworkers	Linear	80.00	Hours
Fa	ctors 80 hrs				T.			
	750 STRAIGHT TIME BASE	C090	STRUCTURAL AND METAL WORKE	KA20H	371/374 Facility Mamt Steelworkers	Linear	80.00	Hours
Fa	ctors 80 hrs				T			
L.	750 STRAIGHT TIME BASE	E070	MECHANICAL ENGINEERS	R100S	RMRS Salaried	Linear	40.00	Hours
Fa	ctors 40 hrs						1	
L .	750 STRAIGHT TIME BASE	E130	OTHER ENGINEERS	SA01S	SSOC 371 Closure Project	Linear	120.00	Hours
Fa	ctors 120 hrs		T		T	T		
	A57 LATA	E070	MECHANICAL ENGINEERS	KA10S	B371 ESH&Q	Linear	6.375.00	Dollars
Fa	ctors 75 hrs		85 dol/hr					

Line Item SYS - Contingency And Escalation

BOE

Resources

es		Cost Element	Skill			Department	Curve	Quantity	Units
C	ON CON	ITINGENCY	0000	NONE	ZDEPT	No Department	Linear	33.747.77	Dollars
Fac	tors 33	3747.8 Dollars							
		ALATION	0000	NONE	ZDEPT	No Department	Linear	22.428.11	Dollars

Factors 22428.1 Dollars

Activity ID: 1A	FHH40000 Description: 3013 Surveillances							Cost Risk	2 Schedule F	Risk 2		
Line Item	Description	Quantity	Units	BOE Type	Labor Hours/Unit	Labor Hours Total	Labor Cost Total	Materials/ Sub Cost	Contingency & Escalation	Total Prime Cost	Burden Cost	Total Cost
1.12.4	Annual Surveillance of 3013 containers	0.00	mo	EE	#Num!	0	0	0	0	0	0	C

Line Item 1.12.4 - Annual Surveillance of 3013 containers

BOE

Estimators Experience - Steve Wing, PuSPS Technical Lead and Paul Fletcher have over 35 years of RFETS experience in plutonium operations and have worked on the HSP 31.11 Project administering all plutonium metal on sight. This experience encompassed multiple projects across the sight.

Experience Item Desc - Surveillance of containers with plutonium contents.

Breakdown of Cost Data:

Item - Annual surveillance of 3013 containers

Units - months

Unit Cost - 1,539 hrs/mo

Unit Cost Adjustment factor - N/A

Revised Unit Cost - N/A

Basis for adjustment - N/A

12 Jun 00 - BOE MODIFICATION TO MEET FY FUNDING TARGETS

Elimated 3013 Surveillance funding assuming SNM shipments occur before canned material reaches 1 yr on-site age.

Total for Activity 1AFHH40000:

Resources

s		Cost Element		Skill		Department	Curve	Ouantity	Units
	750	STRAIGHT TIME BASE	M010	FOREMEN / TEAM LEADS / GROUP	SA01S	SSOC 371 Closure Project	Max Frontload	171.00 H	lours
F	actors	171 hours							
	750	STRAIGHT TIME BASE	R010	CHEMICAL SYSTEMS OPERATOR (KA60H	371 PuSPS Steelworkers	Max Frontload	342.00 ⊢	lours
F	actors	342 hours							
	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KA10H	371 Complex Steelworkers	Max Frontload	171.00 H	lours

Factors 171 hours

Activity ID: 1AFSS30000 Description: Material Campaign Mamt (02) Cost Risk 2 Schedule Risk

Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
SS3.1	Material Campaign Mgt ('02)	1.00	mo	EE	0	0	0	25.600	0	25.600	0	25.600
SS3.2	Supplies for PuSPS Operation ('02)	1.00	mo	EE	0	0	0	65.800	0	65.800	0	65.800
SS3.3	Analytical Lab Sampling for Offsite	1.00	each	НС	0	0	0	780	0	780	0	780

3

 WBS No:
 1AAF11
 Rocky Flats Closure Project
 Project
 Baseline Devl

 Activity ID:
 1AFSS30000
 Baseline Cost and Basis of Estimate
 WBS Filter
 1AAF

		Daseille Cost and Dasis of i				Activi	itv Filter *		Starts In FY *		
SS3.4	Maintenance Support Contracts	1.00 each	VQ	0	0	0	60.000	0	60.000	0	60.000
SS3.5	Building Support - Eng/Maint	1.00 each	EE	320	320	8.863	3.400	0	12.263	3.129	15.392
SYS	Contingency And Escalation	1.00 ea	EE	0	0	0	0	25.304	25.304	0	25.304
Total for Activity 1AFSS30000:				320	8 863	155 580	25 304	189 747	3 129	192 875	

Line Item SS3.1 - Material Campaign Mgt ('02)

BOE

Estimators Experience - Steve Wing, PuSPS Technical Lead and Paul Fletcher have several years RFETS experience in nuclear material processing and operations and have worked on the HSP 31.11 Project administering all plutonium metal on sight. This experience encompassed multiple projects across the sight. During FY99, they have been the principle contributors in the development of the Material Campaign Management Plan for operation of the PuSPS.

Experience Item Desc - PuSPS Material Campaign Management (includes specification, gathering, and transfer of Pu metal and oxide feed to and throughout the process; up through final vault storage)

Breakdown of Cost Data:

Ttem - Material Campaign Management
Units - months
Unit Cost - 2,526 hrs/mo & \$21,760/mo
Unit Cost Adjustment Factor - N/A
Revised Unit Cost - N/A

Basis for Adjustment - N/A

Additional Information:

- NMC 374 hrs/mo
- First Line Supervisor 94 hrs/mo
- RCTs 374 hrs/mo
- Process Specialists 748 hrs/mo
- First Line Supervisor 188 hrs/mo
- Industrial Engineer 188 hrs/mo x \$70/hr
- Supplies \$8,600
- SPOs 748 hrs/mo

Resources

s		Cost Element		Skill		Department	Curve	Quantity	Units
	A57 LATA		E130	OTHER ENGINEERS	KA60S	B371 PuSPS	Max Frontload	12.000.00	Dollars
	Factors 160	hrs/LP		75 dol/hr					
	A57 LATA		M020	MANAGERS (GRADE 69 - 72)	KA60S	B371 PuSPS	Max Frontload	13.600.00	Dollars
	Factors 160	hrs/PO		85 dol/hr					

Line Item SS3.2 - Supplies for PuSPS Operation ('02)

BOE

Estimators Experience - Steve Wing, PuSPS Technical Lead and Paul Fletcher have several years RFETS experience in nuclear material processing and operations and have worked on the HSP 31.11 Project administering all plutonium metal on sight. This experience encompassed multiple projects across the sight. During FY99, they have been the principle contributors in the development of the Material Campaign Management Plan for operation of the PuSPS. Experience Item Desc - Supplies for Material Campaign Management

Breakdown of Cost Data:

Item - Supplies Units - Months

Unit Cost - \$31,971/mo

Resources

s	Cost Element		Skill		Department	Curve	Quantity Units
A5C	SUPPLIES	0000	NONE	KA60S	B371 PuSPS	Max Frontload	400.00 Dollars
Factors	400 dollars for waste drums						
A5C	SUPPLIES	0000	NONE	KA60S	B371 PuSPS	Max Frontload	1.000.00 Dollars
Factors	1000 dollars for tape, bags, etc.	1		I			
A5C	SUPPLIES	0000	NONE	KA60S	B371 PuSPS	Max Frontload	1.200.00 Dollars
Factors	1200 dollars for Crucibles		1				
A5C	SUPPLIES	0000	NONE	KA60S	B371 PuSPS	Max Frontload	1.000.00 Dollars
Factors	1000 dollars for tape, bags, etc.		T				
A5C	SUPPLIES	0000	NONE	KA60S	B371 PuSPS	Max Frontload	300.00 Dollars
Factors	300 dollars for Sample Vials		T				
A5C	SUPPLIES	0000	NONE	KA60S	B371 PuSPS	Max Frontload	1.200.00 Dollars
Factors		ı	1				
A5C	SUPPLIES	0000	NONE	KA60S	B371 PuSPS	Max Frontload	30.000.00 Dollars
Factors	3 loads per month		10000 dollars for Helium per load				

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WBS No: 1AAF11 Baseline Devl Proiect Rocky Flats Closure Project 1AFSS30000 1AAF Activity ID: WBS Filter **Baseline Cost and Basis of Estimate** Activity Filter Starts In FY A5C SUPPLIES 0000 NONE KA60S B371 PuSPS 400.00 Dollars Max Frontload Factors 400 dollars for waste drums 0000 NONE KA60S B371 PuSPS Max Frontload 300.00 Dollars A5C SUPPLIES 300 dollars for Sample Vials A5C SUPPLIES 0000 NONE KA60S B371 PuSPS Max Frontload 30.000.00 Dollars Factors 3 loads per month 10000 dollars for Helium per load Line Item SS3.3 - Analytical Lab Sampling for Offsite Historical Data Source - FY98 Historical costs fron B559 Analytical Labs - Virgene Ideker. Costs estimated from P&I Reporting System (002) BOE Item Desc - Offsite analytical samples Breakdown of Historical Data: Item - Analytical Samples Units - 1 Unit Cost - \$2,310 Unit Cost Adjustment factor - .33 Revised Unit Cost - \$762.30 Basis for adjustment - Percentage based upon estimate received from Virgene Ideker with 559 labs. Resources Curve Quantity Units A5H SUBCONTRACTED SRVS S010 CHEMISTS KA60S B371 PuSPS 779.70 Dollars Max Frontload 2310 FY98 costs for 11 samples 1.02283 -- FY00 Escalation --Factors 0.33 percent estimated from Virgene Line Item SS3.4 - Maintenance Support Contracts Historical Data Source - PIRS, Actuals costs incurred during period 1 Oct 99 thru 21 May 00. BOE Item Desc - Continuation of same activity. Resources Cost Element Skill Department Curve Quantity Units A5H SUBCONTRACTED SRVS 0000 NONE KA60S B371 PuSPS Max Frontload 60.000.00 Dollars Factors 60000 dol Line Item SS3.5 - Building Support - Eng/Maint Estimators Experience - Steve Wing, PuSPS Technical Lead and Paul Fletcher have several years RFETS experience in nuclear material processing and operations BOE and have worked on the HSP 31.11 Project administering all plutonium metal on sight. This experience encompassed multiple projects across the sight. During FY99, they have been the principle contributors in the development of the Material Campaign Management Plan for operation of the PuSPS. Experience Item Desc - PuSPS Material Campaign Management (includes specification, gathering, and transfer of Pu metal and oxide feed to and throughout the process; up through final vault storage) Breakdown of Cost Data: Item - Building engineering support Units - Months Unit Cost - 2.5 FTEs Unit Cost Adjustment Factor - N/A Revised Unit Cost - N/A Basis for Adjustment - N/A Skill Units Resources Cost Element Department Curve 750 STRAIGHT TIME BASE ELECTRICIANS KA20H 371/374 Facility Mgmt Steelworkers Max Frontload 80.00 Hours 80 hrs STRUCTURAL AND METAL WORKE 80,00 Hours 750 STRAIGHT TIME BASE KA20H 371/374 Facility Mgmt Steelworkers Max Frontload 80 hrs 750 STRAIGHT TIME BASE E070 MECHANICAL ENGINEERS R100S RMRS Salaried Max Frontload 40.00 Hours 40 hrs Factors 750 STRAIGHT TIME BASE E130 OTHER ENGINEERS SA01S SSOC 371 Closure Project Max Frontload 120.00 Hours 120 Factors hrs KA10S B371 ESH&Q A57 LATA E070 MECHANICAL ENGINEERS Max Frontload 3.400.00 Dollars Factors 40 85 dol/hr Line Item SYS - Contingency And Escalation BOE Resources Cost Flement Skill Department Curve **Ouantity** Units CON CONTINGENCY 0000 NONE ZDEPT No Department Linear 17.472.96 Dollars Factors 17473 Dollars

WBS No: 1AAF11 Proiect **Rocky Flats Closure Project** Activity ID: 1AFSS30000 WBS Filter **Baseline Cost and Basis of Estimate**

Activity Filter Starts In FY ESC ESCALATION 0000 NONE ZDEPT No Department 7.830.86 Dollars Linear

Factors 7830.86 Dollars

Activity ID: 1AFSS35000 Description: PuSPS Operational Records (02) Cost Risk 1 Schedule Risk

		/									
Line Item	Description	Quantity	Units BO	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
			Typ	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
SS35.1	PuSPS Operational Records ('02)	1.00 m	no EE	0	0	0	11.970	0	11.970	0	11.970
SYS	Contingency And Escalation	1.00 ea	a EE	0	0	0	0	1.789	1.789	0	1.789
	Tot	0	0	11.970	1.789	13.759	0	13.759			

Line Item SS35.1 - PuSPS Operational Records ('02)

BOE

Estimators Experience - Steve Wing, PuSPS Technical Lead and Paul Fletcher have over 35 years of RFETS operations experience and have worked on the HSP 31.11 Project administering all plutonium metal on sight. This experience encompassed multiple projects across the sight. During FY99, they have been the principle contributors in the development of the Material Campaign Management Plan for operation of the PuSPS.

Experience Item Desc - PuSPS Operational Records (Coordinates the assemblage and maintenance of all required history, source of material, thermal treatment, packaging, measurement, and surveillance records for plutonium materials and containers)

Breakdown of Cost Data: Item - Operational Records

Units - months

Unit Cost - \$36,310/mo

Unit Cost Adjustment factor - N/A

Revised Unit Cost - N/A Basis for adjustment - N/A

Resources

Skill Units Cost Element Quantity Department Curve A57 LATA E130 OTHER ENGINEERS KA60S B371 PuSPS Max Frontload 11.970.00 Dollars

Factors 70 dollars/hr 171 hours

Line Item SYS - Contingency And Escalation

BOE

Resources

es		Cost Element		Skill		Department	Curve	Ouantity	Units
	CON	CONTINGENCY	0000	NONE	ZDEPT	No Department	Linear	1,229,70	Dollars
	Factors	1229.7 Dollars	•				·		
	ESC	ESCALATION	0000	NONE	ZDEPT	No Department	Linear	559.38	Dollars

Factors 559.375 Dollars

Activity ID:	1 A FSS38000	Description: Maintenance of PuSPs Operation's Rases (02)

Cost Risk 1 Schedule Risk

Baseline Devl

1AAF

Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
SS38.1	Maintenance of Ops Bases (02)	1.00	mo	EE	0	0	0	10.200	0	10.200	0	10.200
SYS	Contingency And Escalation	1.00	ea	EE	0	0	0	0	1.525	1.525	0	1.525
	Tot	al for Activi	ty 1AFSS380	000:		0	Total Cost & Escalation Cost					

Line Item SS38.1 - Maintenance of Ops Bases (02)

BOE

Estimators Experience - Steve Wing, PuSPS Technical Lead and Paul Fletcher have over 35 years of RFETS operations experience and have worked on the HSP 31.11 Project administering all plutonium metal on sight. This experience encompassed multiple projects across the sight. During FY99, they have been the principle contributors in the development of the Material Campaign Management Plan for operation of the PuSPS.

Experience Item Desc - Maintenance of Ops Bases (includes maintenance of the safety, operational, training and qualification, quality, environmental, safeguards and security, waste, and maintenance requirements necessary for the processing of Pu metal and oxide throughout the life of the project)

Breakdown of Cost Data:

Item - Maintenance of Ops Bases

Units - months

Unit Cost - \$10,000/mo

Unit Cost Adjustment factor - N/A

Resources	Cost Element	Skill	Department	Curve	Ouantity	Units
	A5H SUBCONTRACTED SRVS			Max Frontload	10.200.00 D	

dol/hr Factors 120 85

Line Item SYS - Contingency And Escalation

BOE

D	C . El .	CI : II	D		O	Y Y . * .
Resources	Cost Element	Skill	Department	Curve	Quantity	Units

WBS No: Activity ID:	1AAF11 1AFSS38000		ockv Flats eline Cost a			WE		aseline Devl AF	St	tarts In FY *			
	CON CONTINGENCY	ZDEPT No Department			148				1.047.86 Dollars				
	Factors 1047.87 Dollars												
	ESC ESCALATION 0000 NONE				ZDEPT No	Department			Linear		476.66 Dollar	'S	
	Factors 476.661 Dollars												
Activity ID:	1AFZZ20000 Description: Operate	PuSPS (02)						Cost Risk	4 Schedule F	Risk 4			
Line Iten	n Description		Quantity	Units BOE Type	Labor Hours/Unit	Labor Hours Total	Labor Cost Total	Materials/ Sub Cost	Contingency & Escalation	Total Prime Cost	Burden Cost	Total Cost	
SYS	Contingency And Escalation		1.00 ea	EE	0	0	0	0	51.312	51.312	0	51.312	
ZZ2.1	Shift Ops (02)		1.00 mo	EE	8.745	8.745	203.196	48.000	0	251.196	71.728	322.924	
ZZ2.2	Ops - OT (02)		0.00 ead	h EE	#Num	0	0	0	0	0	0	C	
ZZ2.3	Operate SFE (02)		1.00 eac	h EE	280	280	7.151	0	0	7.151	2.524	9.675	
		Tot	al for Activity 1	AFZZ20000:		9.025	210.346	48.000	51.312	309.658	74.252	383.910	
Line Item SY: BOE	S - Contingency And Escalation												
Resources	S Cost Element		Skill			Depart	ment		Curve	0	uantity Uni	its	
	CON CONTINGENCY	0000 NONE			ZDEPT No	Department			Linear		35.768.87 Dollar	'S	
	Factors 35768.9 Dollars												
	ESC ESCALATION	0000 NONE			ZDEPT No	Department			Linear		15.542.81 Dollar	s	
	Factors 15542.8 Dollars												
Line Item ZZ	2.1 - Shift Ops (02)												
BOE	Estimate based upon campaign model Management Plan", maintained by Pa			hroughput t	ime against	total mate	rial quanti	ities to be	processed.	Ref: "Pu	SPS Material	Campaign	
Resources	S Cost Element	Skill		Department				Curve Quantity			its		
	750 STRAIGHT TIME BASE	TRAIGHT TIME BASE E130 OTHER ENGINEERS KA60S B371 PuSPS							Max Frontload 151.00 Hours				
	Factors 151 SOE hrs/MJ												
	750 STRAIGHT TIME BASE	EN / TEAM LEA	ADS / GROUP	KA20S B371/374 Facility Management				Max Frontlo	ad	80.00 Hours	i		
	Factors 1 RCT/Suprv	80	hrs										
	750 STRAIGHT TIME BASE	M010 FOREM		ADS / GROUP	SA01S SSOC 371 Closure Project				Max Frontload 1.530.00		1.530.00 Hours	i	
	Factors 9 Suprv	170	hrs/Suprv										
	750 STRAIGHT TIME BASE		ERS (GRADE 6	69 - 72)	SA01S SS	OC 371 Closure	e Proiect		Max Frontlo	ad	340.00 Hours	i	
	Factors 2 Ops/Dep Mar	170	hrs/Mar										
	750 STRAIGHT TIME BASE		AL SYSTEMS	OPERATOR (KA60H 371	PuSPS Steely	vorkers		Max Frontlo	ad	5.587.00 Hours	i	
	Factors 37 RRTs	151	hrs/RRT										
	750 STRAIGHT TIME BASE	T050 RADIATI		TECHNOLIGI	KA10H 371	Complex Stee	lworkers		Max Frontlo	ad	1.057.00 Hours	.	
	Factors 7 RCTs	151	hrs/RCT										
	A52 TENERA	•	NICAL ENGINE	ERS	KA60S B37	'1 PuSPS			Max Frontlo	ad :	36.000.00 Dollar	S	
	Factors 480 SOE hrs/PF.JK.RW	75	dol/hr										
	A5H SUBCONTRACTED SRVS	•	ICAL ENGINE	ERS	KA60S B37	'1 PuSPS			Max Frontlo	ad	12.000.00 Dollar	S	
	Factors 160 SOE hrs/JB	75	dol/hr										
	2.2 - Ops - OT (02)			la constant de la con		h . h . 3		11.1		D. C. 12	ana Mataria 3	a !	
BOE	Estimate based upon campaign model Management Plan", maintained by Pa			nroughput t	ime against	total mate	rial quanti	ities to be	processed.	Ref: "Pu	SPS Material	Campaign	
Resources	S Cost Element		Skill			Depart	ment		Curve	0	uantity Uni	ts	
	751 OVERTIME BASE & PRE.	M010 FOREM	EN / TEAM LEA	ADS / GROUP	KA20S B37	1/374 Facility I	Management		Linear		10.00 Hours	i	
	Factors 1 RCT/Suprv	10	hrs		1			1		ı	1		
	751 OVERTIME BASE & PRE.	M010 FOREM	EN / TEAM LEA	ADS / GROUP	SA01S SS	OC 371 Closure	e Proiect		Linear		180.00 Hours	i	
	Factors 9 Suprv	20	hrs/Suprv		, , , , , , , , , , , , , , , , , , , ,			7		r			
	751 OVERTIME BASE & PRE.	M020 MANAG	ERS (GRADE 6	69 - 72)	SA01S SS	OC 371 Closure	e Proiect		Linear		40.00 Hours	<u>;</u>	
	Factors 2 Ops/Dep Mar	20	hrs/Mar										
	751 OVERTIME BASE & PRE.	R010 CHEMIC	AL SYSTEMS	OPERATOR (KA60H 371	PuSPS Steely	vorkers		Linear		740.00 Hours	i	

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WBS No: 1AAF11 Baseline Devl Proiect Rocky Flats Closure Project 1AAF Activity ID: 1AFZZ20000 WBS Filter **Baseline Cost and Basis of Estimate** Activity Filter Starts In FY 751 OVERTIME BASE & PRE. T050 RADIATION CONTROL TECHNOLIGI KA10H 371 Complex Steelworkers 140.00 Hours Linear Factors 7 **RCTs** hrs/RCT Line Item ZZ2.3 - Operate SFE (02) Estimate based upon campaign model projections for process throughput time against total material quantities to be processed. "PuSPS Material Campaign BOE Management Plan", maintained by Paul Oppedal, x5462, T371C. Units Resources Cost Element Skill Department Curve Quantity 750 STRAIGHT TIME BASE M010 FOREMEN / TEAM LEADS / GROUP SA01S SSOC 371 Closure Project 80.00 Hours Max Frontload 80 hr Factors 750 STRAIGHT TIME BASE R010 CHEMICAL SYSTEMS OPERATOR (KA10H 371 Complex Steelworkers 120.00 Hours Max Frontload 120 Factors hrs 750 STRAIGHT TIME BASE S010 CHEMISTS SA01S SSOC 371 Closure Project Max Frontload 80.00 Hours Factors 80 Activity ID: 1AFZZ30000 Description: Reconcile PuSPS Inventory As Clean Cost Risk 2 Schedule Risk Line Item Description **Ouantity** Units BOELabor Labor Hours Labor Cost Materials/ Sub Contingency Total Prime Burden Cost Total Cost Type Hours/Unit Total Total Cost & Escalation Cost SYS Contingency And Escalation 1.00 ea EE 0 8.560 8.560 0 8.560 Shift Ops (02) 0.50 mo FF 3.346 41.899 41.899 14.790 56.689 ZZ3.1 1.673 0 Total for Activity 1AFZZ30000: 1.673 41.899 8.560 50.459 14.790 65.249 Line Item SYS - Contingency And Escalation BOE Resources Cost Element Skill Department Curve Units CON CONTINGENCY 0000 NONE ZDEPT No Department Linear 5.911.06 Dollars Factors 5911.06 Dollars ESC ESCALATION 0000 NONE ZDEPT No Department Linear 2.649.16 Dollars Factors 2649.16 Dollars Line Item ZZ3.1 - Shift Ops (02) Estimate based upon campaign model projections for process throughput time against total material quantities to be processed. Ref: "PuSPS Material Campaign BOE Management Plan", maintained by Paul Oppedal, x5462, T371C. Cost Element **Ouantity** Units Resources Curve 750 STRAIGHT TIME BASE M010 FOREMEN / TEAM LEADS / GROUP KA20S B371/374 Facility Management Linear 80.00 Hours RCT/Supry Factors M010 FOREMEN / TEAM LEADS / GROUP SA01S SSOC 371 Closure Project 750 STRAIGHT TIME BASE Linear 510.00 Hours Factors 3 Supry 170 hrs/Supry 750 STRAIGHT TIME BASE M020 MANAGERS (GRADE 69 - 72) SA01S SSOC 371 Closure Project 340.00 Hours Linear 2 Ops/Dep Mar 170 hrs/Mar 750 STRAIGHT TIME BASE R010 CHEMICAL SYSTEMS OPERATOR (KA60H 371 PuSPS Steelworkers Linear 1.812.00 Hours 12 RRTs hrs/RRT 151 T050 RADIATION CONTROL TECHNOLIGI KA10H 371 Complex Steelworkers 604.00 Hours 750 STRAIGHT TIME BASE Linear Factors 4 **RCTs** 151 hrs/RCT Report Totals: Labor Hours Labor Cost Materials/Sub Contingency Total Prime Burden Cost Total Cost Total Total Cost & Escalation Cost 162.926 3.961.830 6.119.468 623.267 10.704.564 1.804.781 12.509.346

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